

Best Practice

Compass to Workforce Development

A Toolkit for
Policymakers,
Donors,
Governments,
NGOs and
Practitioners

GUIDEBOOK

Produced by
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Introduction

“Workforce development is about enabling all people to have access to opportunities that enhance the development of their skills, knowledge, and aptitudes such that they are able to participate in productive work, either by means of self-employment or by working for someone else.”

This guidebook comprises one third of the *Compass to Workforce Development Toolkit*. It is accompanied by an analytical study and a video. Together, these three pieces provide the background, principles, groundwork, examples, and inspiration to help nations, USAID missions and other donors to implement workforce development projects around the world. Each piece is important.

From the video, you will see workforce development in practice and hear what it has meant to workers all over the world.

From the analytical study, you will learn the background for the creation of the Compass Toolkit, the definitions and significance of workforce development, the challenges of implementing workforce development projects, the social and economic issues addressed by current workforce development investment, and the principles of best practice common to successful workforce development programs.

From this guidebook, you will explore into twenty best practice case studies; places on six continents where people’s lives have been improved by investment in their skills and productivity. The guidebook also provides regional and country-level background for each profiled program.

The three pieces were designed so that beginning with any one of them provides a clear view of workforce development. Taken together, they offer a comprehensive look at investing in workers from a variety of different perspectives. Education Development Center, Inc. (EDC) suggests beginning with the video, as it provides a visual imprint and a basic introduction to workforce development. What you see in the video may draw you to the guidebook to read the case studies profiled in thumbnail on screen. After firmly embedding the pictures and words from a few examples into your growing understanding of the subject, moving to the analytical study will expand the specific information in the case studies into a set of principles for best practice and provide the context in which to ground them. Then, return to the guidebook to read more of the cases and delve deeper into how others have implemented workforce development. Finally, EDC suggests using the tables in the guidebook and the analysis in the study to draw parallels between your context and those in some of the best practice models. This may help you as you think more deeply about the kind of workforce development investments your nation might make.

Organization of the Guidebook

The guidebook contains four main sections:

- Methodology
- Cases At-A-Glance
- Regional Background and Case Studies
- Executive Summary of the Analytical Study

The first section, Methodology, suggests ways to use the Toolkit and covers how the cases were identified, assessed, and selected. In addition, it details the process of creating a format for the case studies and how that format is used in the case studies.

The second section, Cases At-A-Glance, presents helpful tables and classifications of cases. These constructs are provided so that the reader can access the case studies in a number of different ways. This section is intended primarily to help readers quickly move to the case studies most relevant to their own situation and/or to case studies with features that most intrigue the reader.

The third section is separated into four regions: Africa, The Americas, Asia, and Europe. Each region begins with a regional background summary, which provides a look at the current economic, social, and political contexts for the regions where the case studies are found. After each regional background, the case studies present the twenty best practice cases and detail the key success factors for each case. Contact information is also provided.

The fourth section is an Executive Summary of the analytical study and is intended as a springboard from the specifics of the guidebook cases to an analytic look at workforce development investment and best practice.

Methodology

The Center for Human Capacity Development (HCD) at USAID requested the Center for Workforce Development at Education Development Center, Inc. (EDC) to identify and present twenty best-practice cases in workforce development, to prepare an accompanying analytical study, and produce a companion video on leading programs and models. The methodology for the literature review included in the analytical study is covered in the study. The methodology for the case selection and video is described below.

Criteria for Case Selection

To begin, EDC convened a two-day workshop in November of 1995 to bring together leading experts (see Appendix for list of attendees) in workforce development to set the criteria for the cases. At the workshop, participants identified a list of Guiding Principles to direct the selection of cases:

- Promotes and sustains economic development.
- Ensures employer participation.
- Has the ability to regenerate and renew itself.
- Promotes partnership.
- Secures multiple and leveraged funding sources.
- Establishes and attains performance-driven quality outcomes.
- Provides skills improvement leading to expanded choices.
- Possesses a market-driven design that is responsive and anticipatory.
- Is integrated with the basic education system.
- Is customer-driven.
- Provides accessible and equitable services.
- Expects personal responsibility on part of the learner.
- Is effective and efficient.
- Promotes lifelong learning.
- Trains for a range of possibilities.

Rather than using these principles as a list of “must-haves,” EDC accepted them as a list of criteria, not all of which needed to be fulfilled, for a project to be considered for inclusion in the study.

The workshop participants then solidified this list into eight broad categories of analysis and approximately sixty related subcategories. The eight categories of analysis for the cases became:

1. Governance
2. Market Orientation
3. Collaboration of Stakeholders
4. Education, Access, Portable Skills, and Lifelong Learning
5. Financing

6. Assessment, Feedback, and Continuous Improvement
7. Technology
8. Replicability

Identification of Cases

EDC used a number of methods to identify potential cases. At the workshop, experts suggested cases that they felt exemplified best practices. EDC augmented this list with:

- Extensive secondary research that included searches of the databases of major international donor organizations, including the World Bank, the Overseas Development Agency (Great Britain), the United Nations, the InterAmerican Development Bank, the International Labor Organization, the Organization for Economic Cooperation and Development, and USAID.
- Internet searches.
- Contacting a number of other international development and workforce development specialists who could not be present at the workshop.
- Searching for written reviews in workforce development and consulting a number of authoritative reviews.¹

Over one hundred nominees for case studies were culled from all these resources.

Assessment and Selection of Cases

The EDC research team did an initial preliminary investigation on each case by reading available materials and/or contacting project staff. From this preliminary investigation, approximately half of the nominees were set aside because they did not adequately fulfill the criteria categories established at the workshop. The remaining cases were summarized by one researcher and then presented to the entire research team.

This list of fifty strong candidates was narrowed to thirty by the research staff based on the degree to which the project, program, or system met the criteria. Attention was paid to ensuring that the list of thirty cases accurately reflected the diversity of workforce development investments, the diversity of economic and social situations around the world, and the diversity of target populations. In general, EDC ensured that the list of thirty cases achieved a balance between geographic regions served and yet had a general applicability to the types of situations found throughout the world.

Using the working definition of workforce development presented in the analytical study as “*Workforce development is about enabling all people to have access to opportunities that*

¹¹ Works consulted include *Workers in an Integrating World* (World Bank 1995); *Vocational Education and Training: A Review of World Bank Investment* (Middleton, et. al. 1989); *Training for Work in the Informal Sector* (ed. by Fred Fluitman, 1989); *Education and Training for the Informal Sector* (ed. by Fiona Leach, 1995); *Human Development Report* (UNDP 1996); *The Fifth Discipline* (Senge, 1994); *Labor Markets and Social Policy in Central and Eastern Europe* (ed. by Nicholas Barr, 1994).

enhance the development of their skills, knowledge, and aptitudes such that they are able to participate in productive work, either by means of self-employment or by working for someone else,” and the criteria generated at the workshop, EDC found a great many more cases than anticipated, and it was often difficult to select one case over another, as the diversity of cases and approaches was impressive. Where two cases appeared to be close contenders for selection, EDC selected the case on the basis of other factors, such as:

- Addressing a population group not represented in other cases (location, age, employment status, disadvantage).
- Achieving geographic balance between cases.
- Representing a specific level of operations (local, regional, national, international).
- Who was the primary sponsor (education institution, employer, NGO, local government, national government, donor organization).

See Cases At-A-Glance for the distribution of case studies across the various regions of the world, types, participant groups, and a number of other critical factors.

EDC discussed the thirty cases with HCD which resulted in a decision to investigate all the cases further, using a questionnaire developed from the eight categories and sixty subcategories from the workshop (see Appendix). Eleven of the cases received site visits by members of the research team. The remaining nine were investigated through first-person contacts by people outside the core research team, and by phone/fax contact on the parts of the research team, and by obtaining additional written materials.

Through these various measures, EDC obtained answers to as many of the questions as possible. Responses received by secondary means generally were not as fully developed as when EDC researchers obtained the information first hand. EDC then invited the contact person for each case to check EDC’s interpretation of their responses for accuracy. Many sent back further comments and clarifications. With this information, EDC drafted a case study for each of the thirty projects. These draft case studies were presented to HCD officials. HCD, with EDC’s recommendations, selected the final twenty cases presented here. A number of these have been reviewed by experts outside of EDC, and to the extent possible, their comments are reflected in the content and presentation of the case material. Each case is designed to stand on its own. It can also be reviewed and compared with others in the Guidebook.

Presentation of Cases

In the process of analyzing the information gained from research, conversations, and site visits, and judging how to best present its complexity to national policymakers, donor organizations, and USAID missions, EDC created the following format for presenting the case studies.

Case Overview. The Case Overview presents a thumbnail sketch of the project's history, goals/objectives, main features and characteristics, and results in brief. This section gives an overall picture of the project.

Why This Case Was Selected. This brief highlights some of the main reasons why the case was selected. These reasons range from outstanding examples of one or more of the criteria to unique or innovative features and unusual approaches.

Background. This section is a sketch of the historical, political, economic, and/or social context that contributes to the understanding of the case.

The remainder of the sections discuss in detail how the case fulfills nine areas of inquiry, and what the key factors for success have been in each. The sections are:

- Leadership and Accountability
- Demand-Driven Design
- Open Access
- Portability of Skills
- Continuous Improvement
- Public-Private Partnerships
- Sustainable Financing
- Replicability
- Economic and Social Impact

These categories closely track the eight categories identified at the workshop but differ slightly as EDC rearranged and renamed several to present the information in a more succinct and accurate manner. In each section, key points are italicized at the beginning of their explanatory paragraph(s). These italics are intended to quickly draw the reader's eye to some of the important points about the case in each substantive "key factors" section. A discussion of the content of each of these sections follows.

Leadership and Accountability details the administrative practices and principles that have led to project success. The types of questions answered in this section include: What philosophy/conceptual framework underlies the project and how is it practiced? Who is accountable for project performance? What are the values, principles, and procedures that govern the project?

Demand-Driven Design discusses the many ways that projects fulfill the needs of their "customers"—be those "customers" employers, workers, governments, communities, or any other group. This section includes discussions of key ways programs are responsive to the needs and requirements of markets, employers, workers, and other important constituents.

Open Access details the populations served by the project and what mechanisms are employed to ensure equitable and open access.

Portability of Skills discusses what types of skills workers are being trained in and the methods being employed to train them.

Continuous Improvement includes the ways projects evaluate themselves and adjust based on data gathering, the evaluation of projects from outside sources, and how projects continually adjust to changing labor market demands.

Public-Private Partnerships outlines the parameters of the partnership and the roles of different collaborators.

Sustainable Financing reviews how the project is financed.

Replicability, presented when applicable, provides some information on whether the project has been replicated elsewhere.

Economic and Social Impact details, to the extent possible, the impact of the project on economic and social indicators. *It should be remembered that many projects, including some of the cases here, are not systematically evaluated by outside sources.* To measure impact, it is often necessary to rely on self-reports and on data gathered under less than ideal circumstances. For a full discussion on the difficulties in evaluating economic and social impact, please see the analytical study.

Contact Information is provided for each case.

In reading through a case study from beginning to end, it may seem that some points are repeated under different headings. The reason for this is twofold. First, it is expected that some readers will not read case studies all the way through, but instead they will read across case studies for a given category. Thus, it is important that all information relevant to the heading appear in the category. It cannot be assumed that the reader will pick it up in a different part of the case study. Second, many of the practices and features of these cases are intertwined and affect each other. Imposing the discipline of not covering a topic when it is relevant just because it is mentioned elsewhere does the reader an injustice by ignoring the connections that make projects function as a unit. Thus, if it is important to the points being made about values and governance, the reader may find some discussion of the partnership under the Leadership and Accountability section. This is not meant as a haphazard repetition of what is covered under the Public-Private Partnership section, but rather as a discussion to illuminate the real effects of this partnership on other aspects of the case.

Producing the Video

The content for the video was developed through consultations and meetings with EDC and USAID staff and through the emerging conclusions from the analysis presented in the Study. Cases featured are from the final twenty selected using the process outlined above. The video was filmed on-location in Asia, Africa, Europe, North America, and Latin America in collaboration with USAID field missions and profiled projects.

A Reader's Note: Analyzing Across the Cases

EDC believes that the twenty cases selected for inclusion in the Guidebook and the Video represent best practice and fall into a number of broad types:

- National education and training systems.
- Microenterprise development.
- School-based programs.
- Approaches which link education and training to each other in new, constructivist ways.
- Non-formal training programs.
- Providers of support for training initiatives.

Within each type, there was substantial innovation and variation according to local conditions, needs, and resources. Despite this enormous diversity, EDC found a number of common threads and important differences that form a pattern of what features contribute to successful workforce development projects, programs, and systems. The discussion of these common features can be found in the analytical study.

Cases At-A-Glance

The chart below summarizes main descriptors and features of each case. The chart is provided to assist you in locating cases that best match your situation and/or have features and approaches you would like to explore in depth.

Case	Region	Country	Scale	Description	Targeted Populations	Outstanding Features
EMPRETEC	Africa	Ghana	National	Training for microenterprise development	<ul style="list-style-type: none">potential entrepreneurs between the ages of 23 and 60	<ul style="list-style-type: none">success at converting promising individuals who have previously been employed in the public sector to entrepreneurs who manage to succeed despite difficult economic circumstances and poor infrastructurestructured training that builds entrepreneurial and management skills
Agence d'Execution des Travaux d'Interet Public (AGETIP)	Africa	Senegal	National	Training for microenterprise development (construction and infrastructure industries)	<ul style="list-style-type: none">youthentrepreneurssmall and medium size construction firms	<ul style="list-style-type: none">whole systems approach, combining private sector development with the development of a market for trainingemphasis on transparency, political independence, economic efficiency, and impartialitystrong results and replication in other African nationsuse of incentives to develop a transparent public and private bidding systememphasis on providing long- and short-term strategies for training and employing the country's poor youthfocus on deliverables
Workers College (University of the Western Cape)	Africa	South Africa	Regional	Postsecondary school and trade union partnership offering <ul style="list-style-type: none">short- and medium-term skills upgrading in a variety of industriesdemocracy-building skills training	<ul style="list-style-type: none">primarily trade union workers and leaders	<ul style="list-style-type: none">genesis in the labor movementbreakthrough partnership between unions and universitysuccess in undertaking the training and skills improvement of blue-collar workers in the face of opposition from government and business and in a racially and labor-management polarized societykey role of unions, traditionally a stronghold of workers of color in South Africa, in shaping the curriculum and ensuring the skills developed are portable to other firms and include organizational skills and leadershipinclusive philosophy and practiceexplicit training connection to increasing democracy-buildingworker-centered curriculum design
Planta Piloto de Procesos Industriales Microbiologicos (PROIMI)	Americas	Argentina	Inter-national	Advanced biotechnology training	<ul style="list-style-type: none">master's and doctorate level students in microbiology and biotechnology	<ul style="list-style-type: none">focus on applied research that directly affects the broad economic development of Argentina and South Americafocus on skills that will help make the region more competitive in international tradehands-on training in technology and management-related skillspartnerships with employers and other countries
Telecurso 2000	Americas	Brazil	National	Television program for basic & manufacturing skills training	<ul style="list-style-type: none">unskilled, semi-skilled workers, primarily in manufacturing	<ul style="list-style-type: none">wide delivery system through electronic mediaopen access and multiple points of entry into trainingstudent-controlled learningpedagogically rigorous and practically grounded curriculumdistance education paradigmindustry-driven with multiple partners from all levels

Case	Region	Country	Scale	Description	Targeted Populations	Outstanding Features
Chile Joven	Americas	Chile	National	National training system for entry into basic manufacturing and service sectors	<ul style="list-style-type: none">• focus on youth aged 14-24, but does train all types	<ul style="list-style-type: none">• use of government incentives to develop a private-sector market for education and training of poor youth• broad, national scope• focus on bringing large numbers of marginalized youth into the labor market• demonstrates how a middle income country learned from examples in many other highly and less well developed countries• focus on transparency and intragovernmental coordination• close ties to market demands for skill requirements• focus on deliverables, placement and graduation rates• developing a virtuous cycle where trainers must keep improving their skills to find work
Zamorano	Americas	Honduras	Inter-national	Proprietary agricultural school	<ul style="list-style-type: none">• students aged 16-24 who plan agriculture careers	<ul style="list-style-type: none">• developing in its students habits of mind and heart which produce leaders• integrates learning by doing with strict discipline• educates all students—regardless of economic or social status—to very high quality standards• prepares graduates for self-employment as well as for highly competitive jobs in the formal sector• students and faculty work with many NGOs to train micro-entrepreneurs• high success rate of graduates in many professions
Servicio Nacional de Adestramiento en Trabajo Industrial (SENATI)	Americas	Peru	National	National education and training system to develop basic manufacturing industry skills	<ul style="list-style-type: none">• youth	<ul style="list-style-type: none">• institutionalization, standardization, and improvement of education and training in manufacturing throughout Peru• depth, broad coverage, and quality of basic skills training in the manufacturing sector• extensive replication throughout all of Peru’s 37 diverse provinces• success in adapting the dual system to a different culture• employer commitment• ability to survive over 35 years despite considerable political and economic pressures• ability to build and maintain an education and training system alongside the formal education system
Miami-Dade Community College	Americas	United States	Local	Post-secondary school offering two year degrees, skills training, and preparation for four year degrees	<ul style="list-style-type: none">• all	<ul style="list-style-type: none">• building partnerships with the local business community• contributing to economic development by training the workforce for the region’s needs• serving a variety of needs for a diverse population• fostering lifelong learning in the community• encouraging professional development

Case	Region	Country	Scale	Description	Targeted Populations	Outstanding Features
Australian National Training Authority (ANTA)	Asia	Australia	National	Policy coordination body that creates national framework for all education and training in the country	<ul style="list-style-type: none"> all Australians 	<ul style="list-style-type: none"> creates a world-class education and training system with standards, policies, and frameworks that are consistent across all of the country's training providers includes all interested partners in the development of the policies and planning affecting the training system so that it responds to all clients and their training needs ensures the system responds to education and training best practices, as well as workers' career objectives as they change and grow over time
Regional Institute for Research in Workforce Formation, Education, and Development (RIBB)	Asia	China	Regional	Regional education and training research and development institute creating an education and training system for the City State of Shanghai	<ul style="list-style-type: none"> youth who have completed basic nine years of education (most of the youth in Shanghai) 	<ul style="list-style-type: none"> focus on conducting research and development following the model of Germany's Bundesinstitut fur Berufsbildung (BiBB) conducts research and then develops and tests pilot programs that can be brought to scale within 5 - 9 years prepares Shanghai youth for broad sectors of the economy, such as hospitality, financial services, manufacturing emphasis on establishing sustainable partnerships between many of the stakeholders in an entire province of China ability to introduce broad systems change into an established culture whose labor markets were narrowly defined within the Confucian and subsequent Communist tradition consults with Shanghai policymakers and helps them develop new laws that provide incentives for employers, government, fledgling organized labor and educators to invest in a workforce development system
Social Fund for Development (SFD)	Asia	Egypt	National	Government training & economic development initiative offering: <ul style="list-style-type: none"> microenterprise development retraining former public sector employees assistance to military returnees many other projects 	<ul style="list-style-type: none"> the poor entrepreneurs NGOs redundant public sector workers Gulf War veterans 	<ul style="list-style-type: none"> local level NGO design and implementation with government support a combination of microenterprise support and formal-sector training for the poor assistance and retraining to downsized public sector workers large scale government initiative that coordinates between agencies autonomous flexible and responsive to local level needs using a participatory, self-help philosophy employing and refining a strong evaluation and monitoring system proven to have had substantial economic and social impact
Self-Employed Women's Association (SEWA)	Asia	India	Local	Registered trade union that conducts: <ul style="list-style-type: none"> Microenterprise development Skills upgrading Advocacy and organizing training Legal protections training 	<ul style="list-style-type: none"> self-employed, poor women 	<ul style="list-style-type: none"> driven by a registered trade union of self-employed women serves a population of the most disenfranchised uses a cooperative leadership model that draws from its membership focuses on developing all aspects of its membership, including economic, democratic participation, and political awareness provides training in a variety of skills, both trade-specific and portable combines training and policy activities is flexible in its offerings and clearly identifies and meets the target population's needs on an ongoing basis takes a leadership role in changing the conception of the value of women's economic participation is a comprehensive combination of labor union, women's cooperative, pressure group, liaison, educator/trainer, and banker

Case	Region	Country	Scale	Description	Targeted Populations	Outstanding Features
Penang Skills Development Centre (PSDC)	Asia	Malaysia	Regional	Multi-national industry training center	<ul style="list-style-type: none">• currently employed, skilled manufacturing sector workers• not employed unskilled or semi-skilled workers seeking employment in manufacturing	<ul style="list-style-type: none">• industry-led• sustainable and self-financed• strong in technology transfer• prepares both skilled and semi-skilled workers for high technology employment• a portable, multi-skilled curriculum• measurable results• replicated in other Malaysian states• originated in Singapore
Integrated Recruitment, Training and Placement Program (IRTP)	Asia	Philippines	Local	Foundation program that facilitates basic training at workplaces and regional vocational education centers	<ul style="list-style-type: none">• poor urban youth 18 years or older in the squatter settlements of Manila and other selected areas	<ul style="list-style-type: none">• links youth with employers who agree to provide training and to hire the graduate upon completion of training at above-poverty wages• links employers, youth, with regional vocation education centers to improve quality of education• brings economic development policymakers together with educators, employers, and workers' guilds to catalyze a new education and training policy (social partnerships model)• links youth in program with community agencies to provide help with transportation, housing, whatever is needed• advocates in government on behalf of poor youth
Singapore Skills Development Fund	Asia	Singapore	National	Arm of the National Productivity and Skills Board with the power to tax employers and allocate training funds	<ul style="list-style-type: none">• currently employed workers at the mid-level (not entry and not senior management level) and their companies	<ul style="list-style-type: none">• taxes employers for using unproductive (low or unskilled) labor• pools revenue and uses it to subsidize employer led training• has support of employer association, organized labor• is used to achieve Singapore's long-term goal to match standard of living of Switzerland by year 2010• part of long-term strategy to move country's employers to high wage high skill base• part of long-term strategy to develop competitive advantage for the country in the region
National Training Fund	Europe	Czech Rep.	National	Funding organization that provides support for management training for newly privatized and privatizing companies	<ul style="list-style-type: none">• currently employed mid-level managers who will move into newly privatized industries or serve in a restructured public sector	<ul style="list-style-type: none">• conservative, free-market economic framework• extensive links to several government ministries• ability to quickly respond to the training needs of a rapidly developing private sector• reliance on private sector mechanisms to ensure transparency and equity• expansion into other training areas beyond management, such as helping to redevelop the country's vocational and technical education system

Case	Region	Country	Scale	Description	Targeted Populations	Outstanding Features
Dual System	Europe	Germany	National	National training system that prepares 60% of the country's youth for entry into 300 highly skilled manufacturing and service sector occupations	<ul style="list-style-type: none">youth aged 17-22 who do not attend university	<ul style="list-style-type: none">brings together and holds accountable all the stakeholders in the system for developing the skills of the nation's youthdemonstrates that it is possible to prepare individuals with equity and with high quality resultsprovides youth with clear links to employers and high status jobsfunctioning as a learning system where information from each stakeholder (employers, students, union members, trade associations, schools, and chambers of commerce) can swiftly be shared through the local, regional and national network.has been widely examined and replicated in many forms throughout the world
Building Trades Craft Union Training Consortium	Europe	Poland	National	Joint partnership among governments and labor unions to train craftsmen to teach construction methods and self-sufficiency to unemployed workers	<ul style="list-style-type: none">unemployed construction workers	<ul style="list-style-type: none">brings together labor, management, government, and workers so that each group works as an equal partnerprovides an example of how the supply and demand for training can be improved across national boundariestrains workers to help rebuild Poland and to become self-sufficient
Retraining of the Military Program	Europe	Ukraine	National	Provide assistance in retraining, job placement, health and psychological services to ease the transition to civilian life	<ul style="list-style-type: none">downsized military personnel and their families	<ul style="list-style-type: none">focus on retraining retired military personnel for civilian workprovides comprehensive career and psychological counselingtraining of retired military personnel to help develop enterprises and a private sectorcomprehensive support to its clients, including ex-military personnel's familiesbroad geographic and participant coverage

Africa

Cases

Agence d'Execution des Travaux
d'Interet Public
(AGETIP), Africa

Western Cape Workers College, South Africa

EMPRETEC, Ghana

Regional Profile

Many African nations suffer the highest levels of poverty in the world, largely due to a legacy of underdevelopment and declining gross national product (GNP) over the last twenty years.

According to the 1994 World Development Report, 19 of the world's 25 poorest countries, based on GNP per capita, are in Africa. Projections indicate that the African poverty position is likely to get worse, and by the year 2000 the number of poor people on the continent is expected to increase by 50 percent (ILO, 1995).

Africa has a GNP per capita of \$340. The life expectancy is 52 years, with an infant mortality rate of 99 out of 1000 births. There is a 50 percent adult literacy rate, with a 66 percent primary school enrollment rate and an 18 percent secondary school enrollment rate. Only about half the entrants to grade 1 finish grade 5. At the primary and secondary level, more than 80 million boys and girls are not in school. The annual population growth is 3 percent (UNDP, 1996).

Africa's growing debt, currently estimated at \$180 billion, severely damages its economic health. In 1993, external debt equaled 108 percent of sub-Saharan Africa's total GNP, compared to 40 percent in Latin America. Africa's scheduled debt service payments eat up almost 30 percent of export earnings and are projected to soar much higher than Africa has been able to service in recent years. While little United States Government official debt remains, the fastest growing component of the external indebtedness of African countries is multilateral debt which cannot be rescheduled or forgiven.

Unemployment in Sub-Saharan Africa is high. The urban unemployment rate was around 10 percent in the 1970s, and is now estimated to be between 15 and 20 percent, or approximately 14 million people. One of the groups most affected by this situation seems to be young people. According to a survey of 15 African countries by the National Labour Force, the unemployment rates for youth are three times higher than those for adults (ILO, 1995). This youth unemployment rate is worsened by the fact that these young people are more educated than ever before.

However, Africa has great potential for growth and development if sustained investments are made. Africa is not significantly behind where some of the “Asian Tigers” were thirty-five years ago. For example, African per capita income is about 80 percent of what it was in Malaysia, Indonesia and Thailand in 1960. The structures of the economies are very similar, with agriculture the dominant sector and manufacturing accounting for only about 10 percent of GDP. Large infusions of development assistance to the Asian Tigers since 1960 have helped substantially reduce poverty, slow population growth, and increase literacy and education levels. They are now major players in the world economy. It is not inconceivable that the same could happen in Africa.

Relevance of the Compass to Workforce Development Toolkit to the Region

Africa is the final frontier of development, both in terms of need and opportunity. Africa faces the greatest development challenges of any region of the world. According to the 1995 World Development Report, Sub-Saharan Africa must raise productivity in order to compete with the resource-rich countries of Latin America and Southeast Asia.

This is a daunting challenge for two reasons. First, population growth rates are high. The current population of the African continent is 650 million and is expected to grow at the rate of 3 percent per year (compared with 1.8 percent for the developing world as a whole). Second, a

higher proportion of the population is joining the workforce, in particular women in the urban areas. As a result, the overall urban labor force participation rate is expected to increase from 65 percent in 1990 to 67 percent in the year 2000. If we combine this statistic with the population growth, the labor force is expected to grow by 3.2 percent per annum over the next decade. Therefore, approximately 10 million new jobs must be created each year to maintain current levels of employment, let alone increase those figures. This constitutes a clear challenge to human capacity building programs and strategies, and underscores their crucial role in the economic and socio-political growth of the region.

The three cases selected (EMPRETEC in Ghana, AGETIP in Senegal, and the Western Cape Workers College in South Africa) contain a wide range of experiences relating to training disadvantaged populations, the efficiency of public-private partnerships, the importance of accountability and transparency, and the process of transitioning individuals previously employed in the public sector to successful entrepreneurs. This is particularly important for Sub-Saharan Africa, where employment in the formal sector has decreased. Presently, most new entrants into the labor market are being absorbed by the informal sector.

The informal sector is often considered a rapid route to self-employment for young people, but that is often not the case for those who hope to set up their own enterprises in manufacturing and services. It seems to take nearly 15 years before a school-leaver actually becomes an independent entrepreneur (OECD, 1995). In addition, the drift to the informal sector reflects a fall in the quality of formal sector employment. In most countries, informal sector growth has been accompanied by declining productivity and increased unemployment (ILO, 1995). The three African cases profiled in this Toolkit provide successful models of microenterprise development—ways to improve the skills of entrepreneurs and increase the chances that their enterprises will thrive.

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REGION: Africa

**Republic of Ghana
EMPRETEC GHANA Foundation**

Case Overview

EMPRETEC GHANA identifies potential entrepreneurs, supports them with training and consulting services, and facilitates their access to technology, finance, and other businesses. In 1990, the EMPRETEC GHANA Foundation was created by leaders in Ghana and world donor organizations to stimulate the development of private sector jobs and skills by converting microenterprises into small and medium-sized businesses which might then be linked to companies abroad. Throughout its formation, the foundation worked closely with the United Nations Center for Transnational Corporations which had pioneered the EMPRETEC model in Argentina in 1988.

Each year the foundation trains about 200 middle-income individuals between the ages of 23 to 60 for an average of 15 days each year. These individuals have been carefully selected for their high potential as successful entrepreneurs. Many come from jobs in the public sector and some have advanced degrees. Although the foundation's goal is to work with equal members of men and women, women currently make up fewer than 30 percent of its clients.

Despite being one of Africa's richest nations in natural resources, Ghana has an emerging economy that offers very few private sector work opportunities for the approximately 90,000 new entrants that come into the labor market each year. Building a private sector labor market is a critical priority for the country. As in many other developing nations, the informal sector of the economy is vibrant, as virtually everyone is involved in some type of microenterprise activity to help make ends meet. EMPRETEC GHANA covers about half of the urban population of the country with centers in Greater Accra, Kumasi, and Takoradi. In 1996, two new centers will be opened in Tamale and Koforidna.

EMPRETEC GHANA has trained more than 1,000 people. The financial and other management skills developed in this training has generated approximately 500 new jobs within the last 5 years and provided linkages between large and small enterprises which have changed the performance and behavior of the entrepreneurs. Interviews with several entrepreneurs reveal the pride they feel in providing jobs and benefits for their workers. Just as important, they agree that without EMPRETEC they could not have achieved their goals. During this time, EMPRETEC GHANA also made the transition from a project to a sustainable organization sponsored by multiple funders. All of this occurred within a difficult economic climate that included problems such as double-digit inflation, economic upheavals, and low savings rates.

Training new entrepreneurs on how to become more-cost effective has led to the layoffs of some workers who were not needed because of increased efficiencies. Furthermore, the introduction of information and other newer technologies tend to reduce the demand for labor. It is difficult to collect accurate data on cost-effectiveness of the program because of the high inflation rates, but it is known that approximately 90 percent of all the targeted entrepreneurs complete the training program. In 1995 EMPRETEC measured the sales turnover of 35 member companies after training. In real terms (discounted for inflation) sales turnover increased 54 percent.

Over a 5 year period during which the economy experienced a number of serious upheavals, some 500 new jobs were created by EMPRETEC entrepreneurs. Often workers hired for these jobs receive training and benefits for the first time. As the enterprises grow, so do the opportunities for worker advancement and the potential of new enterprises headed by former workers.

Why This Case Was Selected

EMPRETEC GHANA was selected for its:

- Success in building a private sector by converting promising individuals who have previously been employed in the public sector to entrepreneurs who manage to succeed despite high inflation rates, scarce investment capital, and a poor telecommunications infrastructure.
- Structured training that builds entrepreneurial skills and management know-how, giving clients the confidence and knowledge they need to succeed.
- Ability to link fledgling enterprises with large firms inside and outside Ghana.

Background

At the time of its independence in 1957, Ghana had experienced three decades of private sector growth. Despite this track record and rich natural resources (gold, timber, diamonds), Ghana's post-independence strategy for economic development was based on the public sector becoming the engine for economic growth. The formal private sector made an insignificant contribution to gross domestic product (GDP) although there was still a large informal sector engaged in a diverse range of economic activities with limited linkages to the large multinational corporations. These factors, among others, led to a progressive decline in the country's economy.

In 1983, the Government of Ghana began to implement what would be a slow but sustained adjustment strategy under its Economic Recovery Program. From 1986 to 1992, GDP averaged a growth rate of 5 percent, which is significantly higher than the growth rate for most Sub-Saharan African countries. However, despite the fact that over the last decade several policy initiatives have been introduced to liberalize trade, deregulate interest rates, liberalize the foreign exchange regime, and introduce other market reform measures, most of Ghana's 16 million people still subsist on a per capita income of US\$450 a year, farming

traditional food crops necessary for survival. Although policy initiatives have yielded significant results, major constraints still exist, such as high inflation, inadequate physical and telecommunications infrastructure, lack of investment capital and low level of technological skills. Another problem is the growing number of young people who enter the labor market each year looking for employment opportunities. Their task is not made easier given the performance of the basic education system¹ in which the majority of young people leave primary school unable to read or write.

To help young people under the age of 23 get started with their own mini-enterprise, the government has created the National Board for Small Scale Industries to provide training and extension support for potential and existing entrepreneurs. The basic education system is also being reoriented to focus more on teaching employable skills in schools. As EMPRETEC GHANA helps more enterprises to succeed, these workplaces will provide jobs for youth leaving school.

A number of foreign donors have made substantial commitments in providing funds to assist the government with these problems. The government has also launched a major program of action—Vision 2020 Plan—which calls for Ghana to become a middle-income nation by the year 2020. The main thrust of this plan is to enhance private sector participation in national development and for the private sector to become the engine of growth.

Leadership and Accountability

EMPRETEC links small enterprises with multinationals. Scarce investment funds need to be targeted carefully to produce the highest returns. The focus of EMPRETEC is to convert microenterprises to small and medium-sized organizations (SMEs) which in turn can be linked to multinationals. “Unless these linkages are established you don’t have an economy” (Alan Kyerematen, executive director of EMPRETEC GHANA).

EMPRETEC GHANA has developed effective strategies to develop entrepreneurs and provide them with a wide range of assistance, such as:

- Recruit potential entrepreneurs and test them for success factors.
- Train recruits intensively for 2 weeks to help launch their business idea.
- Help trainees develop a business plan.
- Conduct periodic checkups on the general health of clients’ businesses, using a questionnaire and follow-up interviews, to focus on planning, business purpose, and results intended.
- Produce a report, recommendations, and action plan.
- Coach clients throughout the first 2 years.
- Assist entrepreneurs with bookkeeping and accounting services.

¹1 According to interviews with various officials, Ghana’s education system was in the 1950s and 1960s one of the best in Africa, and most Ghanaians could read and write.

- Assist clients with information technology and databases on clients and develop various sector models for export.
- Provide special services, such as business planning, enterprise development, re-engineering, and credit and loan monitoring.

Honesty, transparency, modeling behavior, and accountability govern EMPRETEC's program administration. EMPRETEC GHANA's values are demonstrated by its commitment to:

- Work with potential winners. Jump-starting the Ghanaian economy requires, according to EMPRETEC's director, a sharp focus on training potential winners, not just players. Foundation staff and clients appear to value this focus, recognizing that their success helps accomplish the purpose of helping other promising businesses to grow which in turn provides employment and a better market for their businesses.
- Clear criteria for eligibility. To achieve these ends, the program is open to anyone who meets the criteria for eligibility.
- Honesty and transparency. EMPRETEC GHANA emphasizes the importance of honesty, as clients have to be willing to make a full—and sometimes painful—disclosure of their business performance.
- Always seek to learn best practice. Learn as much as possible about the success of others, share the information, and incorporate the learnings into business practices.
- Demonstrate EMPRETEC's philosophy through its behavior.
- Accountability. EMPRETEC is held accountable by its many international donors, all of whom have different reporting requirements and criteria. However, sustaining EMPRETEC over time will require an internal accountability structure and mechanisms to ensure that the foundation continues to maintain its values. This network is beginning to develop as the foundation's director serves on the boards of a number of organizations that are in a position to scrutinize the foundation's results over time.

Demand-Driven Design

Employees seek the opportunity to become entrepreneurs. Individuals who come to “get diagnosed” by EMPRETEC are either employed by the state or have experienced some success in their microenterprise. They come to EMPRETEC because it offers them the opportunity to participate in their own success.

Mass media advertises EMPRETEC's services and stimulates entrepreneurial thinking. Ghanaians learn about how EMPRETEC might help them become successful entrepreneurs through a variety of print and broadcast media. One successful entrepreneur who was working as an anesthesiologist in the state-owned hospital saw a newsletter, got diagnosed, and enrolled in the training. She now employs nine people and sells her “hot sauce” abroad.

EMPRETEC links multinationals with smaller companies. Potential enterprises come to EMPRETEC because they believe it will make them more productive. Playing the role of the intermediary, EMPRETEC identifies the needs of the large corporations (multinationals) and

identifies intermediate companies that have the potential to link to the larger companies. By doing a profile on the potential partners, they identify existing gaps and help to facilitate the linkages.

Encourage export trade by providing advice and support. One Ghanaian entrepreneur who started working on computers in his bedroom has grown with EMPRETEC's support to an enterprise that employs 23 people and is still growing. EMPRETEC has helped him link with a Canadian investor to finance his international expansion. Ghana's government is focusing on increasing nontraditional exports, such as handicrafts, semiprocessed food, and palm oil. EMPRETEC supports this focus by assisting entrepreneurs with export advice. One of their newer initiatives is an export development project.

Identify key skills and knowledge and develop targeted training strategies. With funding from USAID for foreign expert assistance,² EMPRETEC was able to develop a checklist of skills and knowledge that successful entrepreneurs must have. Trainers use the checklist to develop training strategies that will deliver the skills and knowledge. For example, entrepreneurs come to specific training events to learn about how to make a successful business plan. They participate in monthly networking events which give them the opportunity to learn from formal presentations and informal conversations with others. Moreover, they learn from EMPRETEC's consultant experts who visit regularly with entrepreneurs.

Labor market information is available to entrepreneurs. According to interviews with EMPRETEC staff, approximately 50 to 60 percent of the entrepreneurs with whom EMPRETEC works are aware of or know the market they are in.

EMPRETEC draws upon a range of sources to determine the skills entrepreneurs need. EMPRETEC focuses on building entrepreneurial skills, especially management, planning, and finance. They also teach skills for supervision, negotiation, teamwork, risk assessment, how to recognize opportunities, networking, commitment, and re-engineering. With funding from USAID, EMPRETEC has worked with consultants to define what specific entrepreneurial skills are most important. Trainers learn about future skill requirements through their association with various business and industry associations, government, as well as their own network. Working closely with their entrepreneurs, trainers have identified gaps in total quality management (TQM), standards, information technology, and the ability to use large sets of data. Working with various donor groups, EMPRETEC helps to anticipate market demand for certain industries such as construction. EMPRETEC also works with the Economic Development Board and the African Center for Human Development to identify areas in which skills and capacity should be built.

Trainers come from the business world and receive formal training and certification. Trainers are recruited through direct targeting. Applicants submit their curricula vitae which are examined by EMPRETEC. Those who pass the first screening are called for an

² MSI International helped EMPRETEC develop a skill taxonomy for entrepreneurs.

interview. If they pass the interview, EMPRETEC makes them an offer. Once they accept the offer, trainers must go through a certification process. Once they have received certification, they receive a contract. Moreover, most trainers are independent business consultants who have degrees from the University of Ghana in management, economics, and finance. Some have been trained abroad, and some have worked for international consulting companies.

Each year EMPRETEC GHANA conducts a training of trainers which lasts from 2 to 3 weeks. Training focuses on communication skills, presentation, and related platform skills. International experts designed the train the trainers program with funding from USAID. Some EMPRETEC trainers have been trained at the Entrepreneurship Development Institute (EDI) in India.

Demonstrate competence as an applicant and as a trainee. Foundation staff underscore that their method is competency-based. All applicants for training have to go through a selection process that is done by trainers in collaboration with EMPRETEC management. The selection process looks for a series of entrepreneurial traits. Furthermore, each training requires trainees to demonstrate that they have mastered a specific set of skills such as risk assessment, business planning, and financial accounting. Competencies are quickly revealed in the performance of the trainees' own enterprises.

There are 10 competencies which every entrepreneur must have. These are considered the deliverables and are examined on the business plan which is the guiding document for all follow-up services. These 10 competencies are grouped in three major categories: *Achievement* (opportunity seeking, risk taking, demand for efficiency and quality); *Planning* (information seeking, initiative, goal setting, and monitoring); and *Empowerment* (independence, self-confidence, networking and persistence). Entrepreneurs must provide examples of all these traits in their business plan.

Open Access

Target individuals who have demonstrated skills for success. The program is aimed at entrepreneurs or promising professionals who seek to start a small to medium-sized business. These individuals are typically urban, employed (in the public sector), or self-employed men (70 percent) and women (approximately 30 percent).

Offer special workshops for women. EMPRETEC's services are fully accessible to women. However, they participate at the 30-percent level in part because men dominate certain types of enterprises such as construction. To boost the number of successful women participants, EMPRETEC targets certain workshops only for women.

Advertise its program to everyone. EMPRETEC reaches out to individuals through television, newspaper, and radio advertisements. It is generally accessible to Ghana's urban populations.

Portability of Skills

Teach a variety of business skills. EMPRETEC builds entrepreneurial skills, especially in management, planning, and finance. They also teach skills in supervision, negotiation, teamwork, risk assessment, how to recognize opportunities, networking, commitment, and re-engineering. Entrepreneurial skills apply in any small or medium-sized enterprise and are considered portable.

Attend workshops, network, upgrade skills continuously. After trainees complete their initial workshop, they are tracked by EMPRETEC and provided with a series of follow-up and support measures designed to upgrade their skills and meet the goals developed during the training and set out in the business plans. They also have opportunities to learn from other entrepreneurs in follow-up workshops or informally at various networking events.

Continuous Improvement

EMPRETEC's programs are evaluated on a wide range of criteria. EMPRETEC uses annual work plans which benchmark a number of critical indicators, such as results obtained from outreach, training workshops, and follow-up activities. The work plans are reviewed each year throughout the technical assistance process by EMPRETEC training staff and officers, as well as trainees and, at times, the Ministry of Labor. The result of the review can change the program's strategy and the content of workshops.

Trainers are evaluated after every course by participants and by EMPRETEC, which tracks their performance with video cameras. EMPRETEC officers and trainers review the videos together and discuss skills that need improving. EMPRETEC also measures the number of linkages developed between entrepreneurs and large corporations, the success of the enterprises and entrepreneurs, and the number of joint ventures between Ghanaian and foreign firms.

Public-Private Partnerships

The employer/entrepreneur invests in EMPRETEC's training. The entrepreneurs are the recipients of training from EMPRETEC. Their interest initially is in obtaining additional cash for their businesses. Once a diagnosis has been performed, entrepreneurs see that they can benefit from working with EMPRETEC even though in most cases loans or cash will not be made available.

EMPRETEC receives 20 percent of its total cost recovery fees from the entrepreneurs it trains. Moreover, entrepreneurs may pay for additional services not covered under the subsidized support services. Employers also invest their own time by participating in and coaching seminars and workshops; they often train new or fledgling entrepreneurs on parts of their businesses. Several employers mentioned that they have started to conduct their own in-house training programs at their own expense.

Stakeholders invest or are linked to the program in other ways. EMPRETEC is linked to the National Employers' Association, the Chamber of Commerce, and the Association of Ghanaian Industries as its director serves on the boards of those organizations. However, the organizations do not appear to invest directly in EMPRETEC. Enterprises contribute between 12 and 15 percent of EMPRETEC's total budget.

The public sector is involved on the governing board. The Ministry of Trade and Industry and the Ministry of Finance sit on EMPRETEC's governing Council. EMPRETEC works indirectly with the Ministry of Education and Ministry of Employment. The government also runs the National Board for Small Scale Investors. Aimed at young people who have no prior experience and who want to get started as entrepreneurs, this program could serve as a valuable feeder program for EMPRETEC. It is not clear, however, that this is the case.

Sustainable Financing

World donors and stakeholders provide funding, with the goal of eventual self-sufficiency. Approximately 75 percent of EMPRETEC's funding comes from a variety of donors, including the World Bank, European Union, United Nations Development Program, and Overseas Development Agency. Twenty percent comes from fees for services, and 5 percent comes from various sponsored activities such as a program conducted for Barclay's Bank of Ghana.

The total 1995-1996 annual budget is 1.5 billion Cedis (approx. US\$1 million). Total expenses are 1.2 billion; this leaves operating capital of 288.8 million (approx. US\$142,984). EMPRETEC wants to become fully self-financed and sustainable so that it will no longer need to depend on donor support. To become self-sufficient within 5 years, however, the organization is embarking on a program to aggressively educate their member entrepreneurs so as to raise their income sufficiently to be able to pay the full costs of EMPRETEC's services. Since EMPRETEC has become an independent nongovernmental organization (NGO), it has had to meet the financing requirements of five major world donors. This is no easy task, because of the different financial reporting requirements. On the other hand, because EMPRETEC still depends on donors for 75 to 80 percent of its funding base, it is not likely to be able to quickly adjust should that support cease without a sufficiently long transition period.

EMPRETEC invests on average US\$15 for each participant per day. The average length of support per individual totals to approximately 15 days over the course of the year. Approximately 20 percent of EMPRETEC's budget is paid by its stakeholders, 5 percent comes from various special services, and the remainder is funded by foreign donors.

Replicability

A network of EMPRETEC programs share knowledge and learn from one another.

EMPRETEC was started under sponsorship of the United Nations Development Program (UNDP) in Argentina, Brazil, Chile, and Uruguay before it came to Africa, where it is established in Zimbabwe and Ghana. In Nigeria the program is being restructured. There are plans to establish new EMPRETECs in Botswana and South Africa.

Last year, all EMPRETEC programs around the world met in South America to exchange information. One of the initiatives resulting from this meeting is the move to develop an EMPRETEC network to share information and best practice. Within Ghana, regional offices of the EMPRETEC GHANA Foundation are working with the University of Science and Technology in Kumasi to develop a course on entrepreneurial management and behavior for all university students.

Economic and Social Impact

EMPRETEC builds the private sector through small and medium-sized business development. There is little debate over the assumption that sustained economic growth depends on the existence of a private sector. In a country where the private sector had been destroyed by a previous administration with strong communist leanings, the task of rebuilding a private sector—although a generation later—must be a top priority. By developing people who have the capacity to build their own successful businesses, EMPRETEC is making real headway. By helping to develop successful enterprises so that they can become small and medium-sized businesses, EMPRETEC is establishing the beginnings of a customer-supplier network in the formal economy. Just as promising are the beginning relationships between EMPRETEC client businesses and multinational companies, that bring with them needed technology, know-how, and capital. If some of the capital, technology, and know-how are further invested in Ghana, the economy would grow and produce more revenues that the public sector could use to do needed infrastructure work.

Develop opportunities for women to be entrepreneurs. As EMPRETEC helps women become successful business owners, the status of women and girls in the society should improve. At present, there are virtually no opportunities for young women to participate in the formal economy outside of EMPRETEC and a handful of other programs.

Cost-effectiveness is difficult to determine given double digit inflation rates. According to interviews with EMPRETEC staff the high inflation rates (between 50 and 60 percent in 1996) make it difficult to gather accurate data on cost-effectiveness of the program. In addition, when an entrepreneur becomes more skilled in business management, he or she may be inclined to lay off workers who are not needed as a result of increased efficiencies. Moreover, the introduction of information and other newer technologies tend to reduce the demand for labor. However, approximately 90 percent of all the targeted entrepreneurs complete the training program and stay the course. In 1995, when EMPRETEC measured

the sales turnover of 35 member companies, sales turnover increased 54 percent in real terms (discounted for inflation).

Environmental impact is assessed. All the prospective new enterprises must show that their activities will not have a potentially negative impact on the environment, according to EMPRETEC literature.

Technology is transferred to small businesses. Trainees get information about how technology transfer is done through workshops, with consulting services, and in joint ventures with foreign firms when technology is transferred. There are some small transfers between the University of Ghana and selected enterprises.

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REGION: Africa

Republic of Senegal
Agence d'Execution des Travaux d'Interet Public
AGETIP

Case Overview

Although it is one of a handful of politically stable, multiparty democracies in Africa, Senegal suffers from poor economic growth, a stagnant per capita income, rapid population growth, high infant mortality rates, and a declining base of natural resources. The nonprofit agency, Agence d'Execution des Travaux d'Interet Public (AGETIP) was created in 1989 by leaders in Senegal and the World Bank to develop a private sector that could provide jobs for Senegal's youth, who are hardest hit by the adverse effects of economic reforms initiated by the country's president, Abdou Diouf.

With support from the World Bank and many other donor organizations outside the United States, AGETIP uses market incentives such as competition, transparent bidding procedures, and extensive training to develop a market for training and other services needed to build essential public sector infrastructure throughout Senegal (roads, canals, schools, clinics). "Customers" in this market are the municipalities throughout Senegal who receive extensive training so that they can make financially sound proposals. "Suppliers," on the other hand, are individuals and small enterprises who receive training on how to compete for an award and run their businesses to meet stringent criteria set out in public bid documents. These small enterprises employ people in their own communities who receive training to build the roads, schools, canals, and power lines needed for a market economy. AGETIP covers all of Senegal. This includes 10 regions, 48 municipalities, and 131 out of 317 rural communities. AGETIP's headquarters are located in Dakar. It operates three field offices and four local offices in other regions to have better national coverage.

The main objectives of AGETIP are:

- To develop a private sector that is capable of absorbing the country's high youth population.
- To develop a public and private sector that is independent from political influence.
- To develop a market for training by providing incentives for both customers and suppliers of training.
- To award training, work, and projects based on competence, not graft.
- To deliver services on time and on budget.
- To develop transparent bidding procedures.

AGETIP is a marked departure from business as usual in Senegal. Throughout its history, first as a French colony then during the years following independence in 1960, the government has been the only major employer in the country. Virtually everyone is engaged

in microenterprises to survive. Seventy percent of the country's population is under the age of 25, and youth unemployment exceeds 20 percent. With almost all the employed population in the public sector, how could the country produce the revenues it needed to solve its problems? Building upon experiences in delegated contract management in France and Germany, and with the support of President Diouf, Magatte Wade created the Association with the head of the trade unions in the construction sector, the head of the employer association, and the president of the Mayors' Association. This group met with World Bank experts who were interested in trying a strategy of enterprise development that would focus on workers, instead of machine tools, whenever and wherever possible.

Instead of trying to deal with the civil servants within the government who were likely to resist the development of transparent policies and procedures, the president authorized the formation of a nongovernmental organization (NGO). By spelling out its requirements for bidding, execution, and follow-up of proposed public works projects, AGETIP promotes the development of a competitive market where small and medium-sized enterprises compete for the awards, following recognized public procurement procedures. AGETIP continues to produce results despite a dramatic devaluation of Senegal's currency in 1994.

A unique feature of AGETIP is its reliance on market mechanisms such as competition, information, transparency, and timely response to create a private sector in a country where none had been present. AGETIP does not define which projects and related training should be developed. As "owners" of the infrastructure, municipalities have to request support for the project through their elected mayors. AGETIP uses the principle of "Maitre/Maitrise d'Ouvrage Delegatee," where Maitre/Maitrise is the owner (the municipality) and Ouvrage is the entity or public work in question. Because the municipality does not have the funds in its budget it delegates its power to AGETIP to contract the work. Once the project has been reviewed and approved, AGETIP signs a contract with the municipality/beneficiary. The contract spells out all the details of the processes associated with the bidding, execution, and follow-up of the project. The technical part is managed by a chief of the Works who is usually a qualified engineer, architect, or special consultant retained by AGETIP. To date, AGETIP has a database of some 200 technical experts and firms.

The program attacks all dimensions of public procurement and training. For example, before bids can be put forth, a contract law has to be written and passed, and would-be bidders have to be trained on how to respond to RFPs and how to run a project on time, on budget, and, hopefully, with a profit. Mayors and their municipalities, which have to compete for funds for their infrastructure projects, must be trained to learn how to prioritize between competing demands for a school, a road, or a power line. Workers have to be hired to build the projects to specifications. Trainers have to be found to train workers, and entrepreneurs have to be hired through the same open bidding procedures.

To date, AGETIP has produced such significant results that it is being replicated in 9 other African countries. For details, please see the section on Economic and Social Impact.

Why This Case Was Selected

AGETIP was selected for its:

- Whole systems approach, combining private sector development with the development of a market for training.
- Emphasis on transparency, political independence, economic efficiency, and impartiality.
- Results and the degree to which AGETIP has been replicated in other African nations.
- Use of incentives to develop a transparent public and private bidding system.
- Emphasis on providing long and short term strategies for training and employing the country's poor youth.
- Focus on deliverables.

Background

More than half of Senegal's population of 9 million (July 1995) is under the age of 25. Seventy-seven percent of the population lives on subsistence farming; only 175,000, or less than 2 percent earn wages. With a population growth rate of 3.12 percent (1995) the country will only experience increasing pressure from young people who need to find a way to survive. Developing a strong private sector is important for continued democratic process and economic growth. Education is another urgent priority, as only 37 percent of males are literate and even fewer (18 percent) of females can read and write. In 1994, Senegal embarked on its most concerted structural adjustment effort yet to exploit the 50-percent devaluation of the currencies of the 14 Francophone African nations. After years of foot dragging, the government passed a liberalized labor code which should help lower the cost of labor and improve the manufacturing sector's competitiveness. Inroads have also been made in closing tax loopholes and eliminating monopoly power in several sectors. At the same time the government is holding the line on current fiscal expenditure under the watchful eyes of international organizations on which it depends for substantial support.¹

Until AGETIP, construction projects were awarded by a government ministry that based its awards on personal relationships. Contractors routinely inflated their prices to compensate for anticipated late payments and inflation. There were no bidding procedures and no laws to govern contracts. The public sector attempted to employ as many as possible, with every new hire decreasing the tax revenue that would have been generated had that individual been productively employed in the private sector. Recent newspaper articles in Senegal call for "AGETIPing" other government services. In the meantime, the program is being replicated in a number of other African countries, including Benin, Besao, Burkina, Faso, Gambia, Madagascar, and Niger.

Leadership and Accountability

¹ CIA World Factbook, World Wide Web, 1995.

AGETIP leads the way toward building a transparent and fair private sector. AGETIP is committed to building fair, transparent, and efficient public and private sectors. In Senegal, as in many other developing countries, contractors generally increased their prices to cover costs associated with corruption, delay of payment, and inflation. Instead, AGETIP would use the principles of transparency, honesty, impartiality and fairness to govern all its actions. AGETIP's management reflects its adherence to its own values: its Board includes its major stakeholders who, together with world donors, hold the organization's general manager accountable for executing the action plan over a 3-year period. The general manager issues an activity report to the government, the donors, and the Board every 2 months. Every 6 months AGETIP must be audited by an external independent auditor. The agency is also required to conduct impact studies on various economic and social features of its programs. Unlike the public sector treasury, the manager of AGETIP works with a bank account open to public scrutiny. The agency is also required to have detailed policy and procedure manuals. These manuals prescribe how municipalities or NGOs should submit proposals, how bidding should be done, and how AGETIP delivers payments. All the processes are structured to ensure financial control and accountability.

AGETIP is accountable to many others. A number of governance structures hold AGETIP accountable to its promises. These include the Board of Directors, which consists of municipalities, trade unions, mayors, and an association of employers. World donors hold AGETIP accountable as well.

AGETIP uses the following strategies in order to build a private sector:

- Create an autonomous agency outside the government to develop transparent policies and procedures to manage and supervise public works projects which stimulate the development of private enterprises and local employment.
- Build the capacity of small to medium-sized firms to compete for public sector project awards by first helping the municipality (customer) prioritize its demands. Given multiple demands for roads, schools, health centers, power lines, or a basic geographic survey, municipalities need to learn how to prioritize their needs. AGETIP developed its training program for municipalities by surveying 48 mayors throughout the country to determine their needs for training.
- Build the capacity of municipalities to prioritize their multiple demands for public works by surveying mayors in the country's 48 municipalities. AGETIP was able to spot in what areas municipalities required help in learning how to prioritize their needs among items such as a road, a health center, or a basic physical survey.
- Increase the capacity of the consultants/experts to do feasibility studies. AGETIP does this by training would-be consultants on how to conduct feasibility studies.
- Increase the capacity of the contractors/enterprises that have to deliver the project. AGETIP conducted a detailed survey as most of Senegal's small and medium-sized enterprises (one to five employees) do not know how to plan, execute, and manage a project within the constraints posed in the contract and bid documents. Contractors are trained on how to read bid documents, price them, read maps and surveys, and do effective planning and accounting. They are also trained to respect legal requirements

such as social security. Because most contractors have worked only in the informal sector this process is new to them.

- Build a core group of trained workers by training trainers who in turn will train the people that do the actual construction work. AGETIP issues a document specifying the type of training required. Working with NGOs in the community, AGETIP identifies people with basic construction skill and trains them to train others. AGETIP also uses the local construction trades training school, an electronics center run by the Japanese, the university, and others.

Demand Driven Design

Using competition to stimulate demand for training. AGETIP, through its bid awards and management processes, promotes competition among private sector firms which now constitute a market for services, including training, that did not exist before. As a result, scarce public resources are used more wisely, and municipalities are developing local markets for services which in turn attract further investments. For example, by building a public marketplace for microentrepreneurs hawking on the streets, one municipality is creating jobs, adding real property to its inventory, and helping to build the skills of its microentrepreneurs from whom it can now collect revenues in the form of taxes.

Developing the human resources needed for a vibrant construction and training sector. By providing incentives for trainers to train people on how to compete for bids, AGETIP is building important human capacity necessary for the development of private sector firms. Moreover, successful bidders must train their workers to meet the requirements spelled out in the contract. In this way, youth who had no opportunity for employment can gain valuable construction and related skills. For example, in one region, AGETIP worked with a local NGO to recruit people who had some basic construction skills and trained them for 2 weeks. These people, in turn, became trainers for the construction projects in the region. The two main training subcontractors, the African Institute for Enterprise Development (ISADE) and the Consortium d'Etudes et de Promotion Industrielle e Commerciale (CEPIC) conduct numerous surveys of employers and do market research for various clients to identify key areas for development, such as the Port of Senegal. In targeting certain developmental activities, they are also identifying skills that will be needed.

Identifying what skills are needed in the construction and training sectors. AGETIP finds out what skills are available in construction and training, and it trains people for basic technical and for management tasks in those areas.

Trainers are trained by the “cascade” method. Typically, in a given municipality, AGETIP works with an NGO to identify and then recruit 10 individuals who have some basic construction-related skills. These 10 individuals are trained for a 2-week period in the field. Collectively, these individuals become the core group from which trainers are drawn to provide training in other projects, “cascading” training throughout the country.

AGETIP focuses on developing competencies and meeting deliverables. Building infrastructure (roads, schools, utility lines) within the specifications listed in the bid documents represents a set of competencies and is clearly measurable. The contracting process is based upon continued focus on deliverables. No payment is made until bid specifications are met; or, until workers have demonstrated the competencies that are required to meet the specifications. Moreover, various national certification boards certify the standard of work accomplished by means of technical audits. Skills and knowledge gained can be verified by the quality of the product.

Open Access

Training poor youth from all ethnic and language groups for employment in building infrastructure. The target population falls between the ages of 17 and 50. However, the bulk of the target population is young and poor. Each project targets at least 20 percent of the investment for salaries, which increases the incomes of the people who are doing the work. AGETIP projects include all ethnic and language groups in Senegal, and bid documents, training manuals, and contracts are translated into local languages.

Traditional divisions of labor make it difficult to target women and girls. AGETIP is targeting girls and women in rural areas through their literacy programs. In the infrastructure projects, 98 percent of the participants are men. In the Food for Work/Garbage Collection project one-third are women. However, except in the Food for Work project, women and girls are not involved in the bulk of the construction projects. This is due to the traditional division of labor in Senegalese society.

Portability of Skills

Technical and management skills are portable among firms and regions. Construction skills tend to be highly portable, and both technical and management skills are taught and learned in AGETIP sponsored projects. Training subcontractors also teach a variety of teamworking and related management skills. Skill and training needs are continually evaluated in conversations between AGETIP, enterprises bidding for work, and training subcontractors. Especially in cases where big firms are working in consortia with smaller firms, skills are portable between firms.

Lifelong learning is becoming increasingly attractive. Many Senegalese are attending private schools to learn language and management skills. AGETIP is considering the development of a foundation dedicated to the promotion of training and lifelong learning.

Continuous Improvement

Monitoring and evaluating performance through each step of the process. AGETIP monitors the performance of its training and other contractors throughout each step of the process. It starts from qualification procedures for firms and consultants and extends through bids, procurement, and execution. For example, consider this scenario:

Prepared by the Center for Workforce Development at Education Development Center, Inc., 1996.

A contractor comes to AGETIP and obtains legal counseling before signing the contract. During the legal advice, three things are reviewed: the amount of work, the duration of work, and the salaries to be paid. Once the contract has been awarded, the contractor is supervised by a consultant who has a contract to perform the supervision. This consultant is responsible for daily monitoring of the performance of the contractor. (For instance, they measure the cubic meters of cement produced in a given number of hours, utilizing a certain number of employees.) No fees are paid unless requirements spelled out in the bid documents are met. Before awarding the contract, AGETIP also checks to make sure the enterprise (contractor) has a bank account and performance bond. Once the work is completed, contractors are scrutinized to see if they have met all the bidding requirements. AGETIP also checks to make sure that pricing is within market boundaries. To do that AGETIP has developed a database of all relevant market prices. All contracts awarded through AGETIP are tracked with a computerized management information system (MIS). On a yearly basis, a technical committee reviews the firm's performance. Based on these results, AGETIP upgrades or downgrades these firms; this allows them to reconfigure the training program, among other things.

AGETIP does a spot check of training activities in various locations. At the end of each project, the contractor sends a report of completed training to the consultant in charge. The consultant/supervisor performs random sampling of the impact of the training based on a survey of the trainees. Periodic reviews of all training activities are conducted every 3 months. The factors that are reviewed include:

(a) a degree of interest in the training courses, i.e., how relevant were they, (b) extent of increase in management skills as demonstrated by performance, and (c) suggestions for improving technical skills. The result of the review changes the program in that supervisors list the problems faced by the enterprise and AGETIP adjusts the program accordingly. AGETIP's training department staff, its technical staff, the contracting training organization, and trainer institution participate in the 3-month reviews. The engineer or architect is usually the supervisor who evaluates *trainers* on a daily basis. They do so by checking the results of the job being performed by the contractor.

External monitoring is conducted every six months. The World Bank Task Management Office conducts an external review every 6 months.

Public Private Partnerships

Employers gain by participating in AGETIP. For the first time and in most cases, enterprise owners are getting paid on time. Moreover, employers now have increased access to skilled people and to improving their own management skills. At the same time, AGETIP is also increasing its capacity to do business and make a profit.

Employers are beginning to invest in AGETIP. At the beginning of the program, AGETIP subsidized 100 percent of training costs. Now, employers pay between 10 and 90 percent of

the total cost of the training program. For example, if an employer wants to know how to use computers and is registered in AGETIP's database, he or she can get some of the training costs financed. Recently, AGETIP staff conducted a survey and found that most employers would be willing to pay for more sophisticated training out of their own pockets.

Many stakeholders participate in AGETIP. AGETIP partners with NGOs in the local communities where it has financed private enterprises to construct schools or other infrastructure. Often, NGOs are used to supervise local enterprises or people to do the actual construction work. According to interviews, the partnership between industry or government is conducted at the national level. However, both government and industry (via the association of employers) are represented on AGETIP's Board of Directors.

The public sector as beneficiary and as source of financing. In a sense, the public sector is the beneficiary of AGETIP's work as the infrastructure that is built benefits all. However, the public sector also contributes by financing projects in the amount of 10 percent of total cost.

Sustainable Financing

AGETIP is financed by a consortium of world donors and, increasingly, by its customers. The approximate cost per individual can be found in the World Bank Appraisal E & T Annex.²

Donors include the World Bank, the African Development Bank (ADB), the German Cooperation Agency (KFW), the French Cooperation Agency, the Mission Française de Cooperation, the Japanese Cooperation Agency, the World Food program, the European Community, the Canadian Cooperation Agency, and the United Nations Development Program. World donors and government provide 54.3 billion CFA (approx. US 100 million). AGETIP charges a 5-percent overhead fee for managing its projects to cover operating costs, which are paid by its customers, the municipalities of Senegal which request financing for projects. Up to an additional 10 percent is paid for project supervision. AGETIP is currently working with a graduate student at the Massachusetts Institute of Technology to develop various return on investment (ROI) models.

AGETIP helps to develop long term financial viability. The program is designed to be in a position to sustain itself over the long term. For example, as municipalities build infrastructure and enterprises become profitable, the municipality and national government will receive additional tax revenues. These in turn can be used to finance other AGETIP projects. However, over the short term, the project depends on outside donors for 90 percent of its funds. Moreover, a number of essential financial instruments have to be developed before AGETIP can be financially sustainable. For instance, as yet equity markets do not

² Interviews with project staff refer the reader to The Education and Training Annex attached to the project report located at the World Bank. Due to limitations of time and space, the information is not included with this study.

exist in Senegal. Furthermore, municipalities have no way to retain some of their tax revenues. This is expected to change over the next 10 years as equity markets develop to fund bond and other issues.

Replicability

AGETIP has been replicated in nine countries during the past seven years. These include Benin, Besao, Burkina Faso, Gambia, Madagascar, Mali, Mauritania, and Niger. The Congo, Gabon, and Togo are preparing to start AGETIP, which have been networked by means of AFRICATIP. Its main objective is to share experiences in training, construction, and reducing costs.

Economic and Social Impact

Specific AGETIP results include:

- Increased the number of firms that can meet local demand from a few to 1,680, and identified 260 local consultants.
- Reduced cost of construction by 40 percent (increased efficiency).
- Provided “transparent” and impartial access to local enterprises as subcontractors.
- Decreased time required for each activity.
- Developed a transparent public bidding system.
- Developed laws to ensure fairness and transparency, such as the new law in Senegal which governs bids in the public sector.
- Increased access to basic infrastructure in urban and rural areas by building classrooms and health centers, collecting garbage and paving streets. AGETIP incentives have led to the construction or rehabilitation of 478,584 sq. meters of buildings.
- Constructed or rehabilitated 198 km of roads, 114 km of canals, and 65 km of conduits.
- By 1998, AGETIP will have constructed 1,450 classrooms. During 1996-1997, AGETIP plans to rehabilitate 180 classrooms in different regions of Senegal.
- Constructed or rehabilitated 15 libraries.
- Constructed six teacher training colleges.
- Generated 3,000 permanent jobs and 134,000 temporary jobs.
- Generated in salaries 8.2 billion FCFA (equivalent of U.S. \$16.5 million) for young people.
- In the Food for Work project, AGETIP “employs” some 1,500 youth (2/3 male, 1/3 female) to collect household waste, clean streets, and clean the waterways.
- Municipalities—AGETIP’s customers—are delivering better projects and prioritizing their demands.
- Bid documents are coming in on time and bids are transparent. They reflect real costing and correct margins.
- More and more firms are executing more than one project. More and more local firms are winning contracts as prime contractors, not just subcontractors. The average time required to do one project has decreased, and overall penalties have decreased.

AGETIP promotes economic growth by developing Senegal's human capacity to meet the skill needs of the private sector. AGETIP promotes economic growth by introducing market principles into a society that has virtually no history of private sector development, except in the informal sector. Economic growth is also promoted by international linkages between firms. Wherever possible, AGETIP tries to link small- and medium-sized enterprises with large multinationals. For example, a Senegalese who partnered with an international consortium recently won the award to design and build a university library. Other African countries are linking with Senegalese firms in a south-to-south exchange.

Building public sector infrastructure creates jobs and improves the quality of life. Since 1989, some 3,000 new jobs and 134,000 temporary jobs have been created. Some economic indexes link the improvement of the quality of life to better infrastructure, food security, improved environment, and higher safety through electrification (street lights).

Environmental impact is assessed in each project. Each project financed through AGETIP must be accompanied by an environmental impact statement. This is done before a project begins and at the end of each year. AGETIP policy states that if any environmental damage has been done, it will be compensated. For example, for each tree destroyed, another tree will be planted.

Technology transfer occurs through linkages with post-secondary institutions and international firms. AGETIP tries to make matches between local small enterprises and international firms to promote the transfer of technology. One such example is the award AGETIP issued to a Senegalese architect who, in a consortium with a large Canadian architectural firm, won the bid for designing and building a university library. University or polytechnic engineering students sometimes participate on such projects to fulfill their practical experience requirements.

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REGION: Africa

**South Africa
Western Cape Workers College**

Case Overview

The Western Cape Workers College at the University of the Western Cape trains union workers in vocational/technical, leadership, communication, and organizational skills. In the mid-1980s, the Congress of South African Trade Unions (COSATU) and the University of the Western Cape (UWC) identified a need for education and training of the workers in South Africa. Creating a program to fill this need was in line with the mission of the university to make education accessible to the disadvantaged communities of South Africa and the working class, the population segment from which the university draws the majority of its students. COSATU and the UWC conducted a feasibility study in 1987, the results of which showed both resources and need and verified that a training and education project for workers would find an audience. After the feasibility study, COSATU agreed that the project should be inclusive of all unions.

Out of the feasibility study grew a plan for a workers college, which was opened at UWC in 1991. At that time, race polarization and discrimination practices were at an all-time high in South Africa. Trade unions were the political vehicles through which the large disenfranchised population could mobilize and organize toward political change. Thus, unions and their programs were unpopular with business and were seen as a threat. The new Workers College was a milestone in the history of South African education and training because it was a place where workers and an educational institution took development and empowerment seriously by serving the interests of workers, who were largely disenfranchised, as well as the interests of the country. To date, COSATU, the National Congress of Trade Unions (NACTU), and many independent unions have joined the project. There are more than 34 trade unions that have as many as 260,000 paid-up members with more than 5,000 shop stewards.

Primary objectives of the Western Cape Workers College are:

- To educate a new generation of leaders in the public and private sector.
- To develop particular skills as defined by the needs of the country and the trade union movement.
- To empower male and female workers of all races and locations to take a meaningful and active role in their organizations and workplaces.

The Workers College creates and administers a core nine-month program that teaches a mix of vocational, academic, leadership, and communication skills to blue-collar union workers. The college also offers short refresher courses to update and add to the skills and knowledge

base of previous students. The curriculum draws heavily on the experience workers have gained in the workplace and is modular in design.

Students enrolled in the Workers College are largely from the Western Cape (70 percent), but the program has drawn students from all over South Africa. The students are predominantly African and colored workers and members of the trade unions. The breakdown is 75 percent male and 25 percent female. Students are age 25 and older.

Although no formal evaluation was available, former participants of the College have improved their skills, life situations, and union effectiveness. Many became political leaders in local government as a result of the 1994 and 1996 elections. Others took positions as researchers in education and training, trustees of the College, and key leaders in their respective unions. The College is seeking accreditation with the National Certification Board for enhancing further access to education.

Why This Case Was Selected

The Western Cape Workers College was selected for its:

- Genesis in the labor movement.
- Breakthrough partnership between unions and the university.
- Success in undertaking the training and skills improvement of blue-collar workers in the face of opposition from government and business and in a racially and labor-management polarized society.
- Key role of unions, traditionally a stronghold of workers of color in South Africa, in shaping the curriculum and ensuring the skills developed are portable to other firms and include organizational skills and leadership.
- Inclusive philosophy and practice.
- Explicit training connection to increasing democracy-building.
- Worker-centered curriculum design.

Background

For hundreds of years, South Africa has been a land of sharp distinctions. Whites and blacks were kept separate in all spheres of human activity, with coloreds (mixed-race and those of Asian descent) suspended somewhere in-between. The 1995 CIA Factbook reports that many of South African whites (only 13 percent of the total population) enjoy incomes, material possessions, and health and educational standards equal to those of Western Europe. However, most nonwhites suffer from the poverty patterns of the Third World, including unemployment and lack of job skills. The Factbook finds that "economic developments for the remainder of the 1990s will be driven largely by the new government's attempts to improve the living conditions of blacks, to set the country on an aggressive export-led growth path, and to cut back the enormous numbers of unemployed." The Western Cape Workers College is a direct attempt to empower workers of color with the necessary vocational, technical, leadership, and communications skills that are necessary for South Africa to

achieve economic and social integration. The economy in recent years has absorbed less than 5 percent of the more than 300,000 workers entering the labor force annually. It is estimated that the economy must grow 5 to 6 percent each year in real terms alone to absorb all the new entrants, let alone reduce the accumulated total.¹ Moving non-white South Africans into this economy, through the types of training provided at the College, will be key in helping the nation achieve better economic growth rates.

This history of racial divisions, animosity, repression, and hardship has only recently been broken. South Africa is a society deep in transition, building a new nation over the skeletons of the old. The educational levels of blacks (the majority of the population) are still heavily affected by past discriminatory and segregation practices, and government policies that actively kept nonwhites from advancing their skills and economic standing. Before 1990, state expenditure for each pupil in Rand was R930 for blacks and R3,789 for whites.² Less than 40 percent of blacks complete elementary school compared with nearly 100 percent for whites. In the past, trade unions have been influential as a primary vehicle for the struggle against apartheid. The College directly taps this traditionally strong institution and uses its membership and administrative structure to support the process of advancing the skill levels and economic standing of its target population.

Leadership and Accountability

The Workers College practices an inclusive, class-aware, and worker-centered philosophy. The college's philosophy deeply resonates with its target population, deepening the understanding of the working class struggle in society and the responsibility to transform the South African society. The Workers College also acknowledges that no educational institution previously existed which dealt with the specific needs of workers and promoted worker education. To put this philosophy into practice, the commitments of the College include:

- Providing education to workers and their leaders.
- Developing sustainable educational practices.
- Promoting healthy and critical debate on subjects such as discrimination.
- Promoting efficient trade union organizations, structures, practices, and development.

Strategies pursued by The College's leadership draw on the strengths of partners and workers. The College draws from its union base in recruitment, curriculum design, training, and policy strategies. For example, The College:

- Works with the participating unions to select the students for training in the development of a meaningful curriculum.
- Allows these trained workers to train and develop others in their respective movements.

¹ CIA World FactBook, World Wide Web, 1995.

² 1 rand (R) = 100 cents, CIA FactBook, 1995.

- Trains for the development of a core of skilled negotiators, educators, economists, and legislators who would represent unions in the various spheres of decision making.
- Advances the cause of lifelong learning and articulation of training and education within a human resource policy framework for South Africa.

The principles of transparency, quality, and access guide the administration of the college.

The administrative structure follows a union-based participatory management style.

Financial accountability is given the highest priority. The management team and the Board of Trustees ensure that principles and practices are upheld. They author monthly reports as well as a yearly report of the work of the college. Each trade union council reviews and must accept the reports.

Unions provide vital leadership and political links. Because COSATU and NACTU are flagship members in the college and are extremely important and influential South African organizations, they ensure that the education and training framework embraces lifelong learning, realizes practice, and harmonizes with new laws, including the National Education Framework.

Demand-Driven Design

Unions and the university work together to design relevant, flexible, and cutting-edge training. The trade union and workers are the demand side of this training equation. The union and the university set curriculum and instruction topics and methods that ensure a mix of vocational, academic, and softer skills such as leadership and communication in the core 9-month program. The management team and the Board of Trustees meet regularly to determine the trends in the market and skills in demand by industry. Unions also help in this process.

Mechanisms ensure that the effect of training one worker spreads out to others. Unions select participants who often develop educational programs within their own local union branches after attending the college. The college also offers short refresher courses that enable previous participants to return for additional training. These short refresher courses have become even more important because South Africa's Constitution and labor laws are changing. These changes demand workshops to inform all union members in leadership positions about the effect of these new laws.

Curriculum and training modalities fit trainee needs. The philosophy of the Workers College is that adults gain experience in their places of work and particular skills further enhance those experiences, training, and the articulation with the formal educational system. Thus, the needs and experiences of workers are at the center of the curriculum and the content of instruction. The modular curriculum that guides their education is based on the reality of the market, its needs and demands, and external influences such as trade. Instructors are drawn from practice, industry, and education. This circle is completed when students, who are all employed, bring their training back to the workplace and the union meeting, apply it, and share it with others.

Trainers come from education institutions and from the workplace. Trainers are largely adult educators within the Unit of Adult and Continuing Education, but the College also draws from its demand side. Members of the unions with knowledge, but no direct training experience, undergo a train-the-trainer program and then are qualified for instruction. In addition, former students who have demonstrated ability, skills, and educator potential become trainers.

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Inclusive philosophy and practice. The South African government classified the University of the Western Cape as a historically black campus and designated it legally to operate for particular ethnic and racial groups. The university historically refused such identity and said, “The Doors of Learning shall be Open.” This long-standing philosophy directed the collaborative creation of the Workers College and its policy of nondiscrimination and access to all. To target underrepresented populations, the college has begun three new initiatives: Rural and Farm Workers, Gender Equality, and Distance Learning.

Reaching out to rural areas. Participants are blue-collar workers drawn from the unions, which are largely urban based because of the location of industry. However, the college requests that unions also send rural delegates. This initiative has been successful because many unions have members from the rural regions, particularly in areas earmarked in the 1980s as decentralized economic units.

Increasing women’s attendance. Although the trainees are overwhelmingly male (due in part to the composition of the unionized workforce and in part to a possible bias), the college has attempted to bring in more women with a new program started in 1996. In the past, although the college was open to all, problems of selection, distance, transport, and separation from home interfered with women’s attendance. The college hopes to remedy these problems through the new program.

Portability of Skills

Skills of many types are taught. The union and the university set curriculum and instruction topics and methods and ensure a mix of vocational, academic, and softer skills such as leadership and communication in the core 9-month program. One of the main goals is not only to increase on-the-job skills, but also to help workers acquire leadership, communication, and organizational skills necessary to move up the ladder and to advance the union. Many of these skills are generic and applicable to all industries. Part of this generic skills methodology is dictated by the arrival of participants from a wide variety of trade unions that operate in diverse sectors. The industries represented include health and food workers, automobile manufacturers, textile workers, printing industry, canning industries, trades like electricians, etc. Skills are also portable from region to region because so many industrial sectors are represented and because COSATU and NACTU are national unions.

Continuous Improvement

Internal evaluation works both ways. All modules are evaluated by the participants. The trained groups and participants also make formal presentations to the management team and a selected group of evaluators about what they have learned from the course materials and how the materials might be improved. They also make written reports to their shop stewards council. Trainers are evaluated by trainees, management team, and their peers during and after modules, with one of the important criteria being that presenters acknowledge the adult learners and the wealth of experiences they bring to the program. Often, the college changes presenters or their course materials based on participant feedback.

Participant progress is tracked throughout the training. Each module contains practical and experience-oriented projects, assignments, and presentations. Participants are evaluated by instructors to monitor the development of their skills in argument and debate as well as critical thinking and contextual skills development. Instructors also evaluate problem-solving and communication skills. Evaluative indicators on these softer skills are factors such as:

- Ability to cope with the group.
- Ability to cope with distance from the home and work.
- Ability to take initiative.
- Ability to bring own experiences and context to the classroom and group sessions.
- Ability to cope with tasks as assigned.
- Ability to communicate effectively.

Forthcoming diploma accreditation. As the next step in improving quality, the college has created a diploma that the University of South Africa (UNISA) will accredit, and hopes that other universities will follow. The trade unions have been the forerunners of the process of accreditation and articulation of educational qualifications for further studies.

Public-Private Partnerships

Working to extend a successful “partial” partnership. This program is a partnership between the University of the Western Cape (public sector and state funded) and the trade unions, led by COSATU and NACTU. Currently, employers perceive the college as a threat because of separation of labor, management, and education. Employers are concerned about the time away from work to attend the college and its effect on productivity, as well as the possible impact of strengthened unions. In addition, few South African employers are convinced of the benefits of investing in workers without a school-leaving certificate. However, some employers have recognized the benefits of the college to worker skills and preparedness: Shell in South Africa has supported the program in the past and some businesses have held open the worker’s job while he or she attended. At present, although business is not a contributor or a major stakeholder in the college, the National Economic and Democratic Labor and Commerce Initiative (NEDLAC) may help to increase the participation of business. In addition, circumstances in South Africa are changing. The

current government supports the college, and the Minister of Justice gave the 1996 commencement address.

Sustainable Financing

Diversified funding. The college is funded from a variety of sources. Trade unions contribute through their affiliations fees. Some unions are small while others are large in membership and financial strength. Participating unions also pay toward their members' course fees. Members who take courses pay part of the course fee.

UWC provides at no cost the infrastructure of administration salaries for two full-time workers in the college and the payment of lecturer and participant costs. UWC also provides the physical plant for lectures, workshops, and training.

The biggest single donor is currently the international labor movement, including the International Federation of Free Trade Unions based in Brussels, Belgium. Computers have been sponsored by the British Consulate, Canada, and the Netherlands. Currently, the college is campaigning for financial sustainability and self-sufficiency. It is also spearheading a campaign for individual contributions to training and development.

Replicability

Organized labor in other countries might try this approach to demonstrate the value of training to employers. The improvement of worker skills as a result of college attendance and the concept of increased worker skills because of training has ignited a union drive for employer acknowledgment and remuneration for added skills acquired during training in other programs (not just the college). Workers who move from their respective jobs find that their added skills make them substantially more marketable. Within South Africa, the college is being replicated in the Eastern Cape and the modules are in use in other places without the formal college structure.

Economic and Social Impact

Creating a cadre of trained workers. Each year since its inception, the program has trained between 20 and 40 people in its 9-month program and many more in short-term and special courses. Part of the course includes a major component on the sustainability of the industry, its practices and its effect on the environment. Case studies from the 1991 participants revealed that more than 20 percent of them obtained better jobs or increased their chances to contribute to developmental programs.

Helping build democracy in South Africa. The skills acquired at the college equip participants to help shape the new South Africa through improved decision making, trends analysis, and new demands of the marketplace. With unions as the feeder program and an orientation toward both hard and soft skills, the college is helping change the perception of blue-collar workers, their capabilities, and their value to the economy.

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The Americas

Cases

Planta Piloto de Procesos Industriales Microbiologicos (PROIMI), Argentina	Chile Joven, Chile	Servicio Nacional de Adestramiento en Trabajo Industrial (SENATI), Peru
Telecurso 2000, Brazil	Zamorano, Honduras	Miami-Dade Community College, United States

Regional Background

Latin America

By many common measures, Latin American and Caribbean (LAC) countries appear to have made good progress in improving the quality of life and living standards over the last 35 years. Life expectancy between 1960 and 1993 increased from 56 to 69 years, and infant mortality declined from 105 per 1,000 live births to 47. Indicators of adult literacy, school enrollments, and access to safe drinking water have all improved. Malnourishment among children has declined (UNDP, 1996; USAID, 1996).

Since the recession of the mid-1980s, the economy has improved significantly. Inflation, previously expressed in four or even five-digit figures, is now under 100 percent in many countries. This economic recovery, though still hesitant, has been helped by economic adjustment programs. These programs have varied greatly from country to country in their timing, nature, intensity and effects. The region's total gross domestic product (GDP) increased by an average of 3.4 percent a year during 1991-94. In terms of employment, there is also some cause for optimism. The number of jobs has been increasing in line with the expansion of the labor force. In achieving many of these considerable accomplishments the national government, bilateral donors, and international organizations have learned—and are convinced of—the importance of working with a variety of institutions open to policy change and assisting countries in the region enhancing indigenous capacity.

Prepared by the Center for Workforce Development at Education Development Center, Inc., 1996.

Despite these signs of progress, however, poverty rates remain high. The United Nations Economic Commission for Latin America and the Caribbean estimates that 196 million people in the LAC region (46 percent of the total population) were living in poverty in 1990, up from 136 million (41 percent) in 1980 (USAID, 1995). According to the USAID 1996 Congressional Presentation, economic growth and the rate of poverty reduction in the region remain too slow to meet the 1992 Summit of the Americas' objectives of eradicating poverty, reaching a 100 percent primary school completion rate by 2010, and reducing child mortality by one-third and maternal mortality by one-half by the year 2000.

During the 1980s, the Caribbean suffered most of the same setbacks as the region as a whole. But, there are some distinctive features. Caribbean countries generally have much more open economies, heavily dependent on the export of primary commodities and tourism. Since 1980, the high unemployment rates have persisted despite large-scale emigration, particularly to North America (World Bank, 1995). International competition is becoming even fiercer in the traditional primary industries, in light manufacturing and assembly operations, and in tourism. Therefore, the need to create more training opportunities is crucial for the LAC region.

North America: The United States

The United States has the most powerful, diverse, and technologically advanced economy in the world, with a per capita GDP of \$25,850, one of the largest among major industrial nations. The economy is market-oriented, with most decisions made by private individuals and business firms, and with government purchases of goods and services made predominantly in the marketplace. In 1989, the economy enjoyed its seventh successive year of substantial growth—the longest in peacetime history. The year 1994 witnessed a solid 4 percent gain in real output, a low inflation rate of 2.6 percent, and a drop in unemployment below 6 percent. Literacy rates and life expectancy continue to be among the highest in the world.

Yet, the United States is not without economic and social problems. These problems include inadequate investment in economic infrastructure, rapidly rising medical costs, sizable budget and trade deficits, and a mediocre secondary education for the approximately 50 percent of youth who do not go on to college. These youth, many of whom drop out without a high school diploma, often take low-skill service sector jobs with little opportunity for advancement or growth. The current economic issues high on the agenda in the United States include reducing the budget deficit, revamping the social welfare system to decrease dependency and increase economic self-sufficiency for beneficiaries (called “workfare” instead of “welfare”), keeping firms and jobs in the United States that recently have been moving operations overseas, and providing “safety nets” for workers who lose their jobs or are laid off (including continuing health care coverage beyond employment termination).

Relevance of the *Compass to Workforce Development Toolkit* to the Region

Along with the significant changes in employment mentioned in the previous section, there have been important changes in the LAC region in the structure of the workforce. Women’s economic participation is on the rise—in 1980 women comprised 22 percent of the labor force, but by 1991 this figure had increased to 38 percent. Secondly, the labor force in Latin America and the Caribbean is now much better educated. Literacy rates continue to increase; in 1990, they averaged 85 percent. People are also staying in school, with enrollment rates of 87 percent for primary education, 58 percent for secondary, and 27 percent for tertiary (a fourfold increase over the past three decades) (Instituto Tercer Mundo, 1995).

Unfortunately, as the quality of the labor force has risen, the quality of the jobs available has been falling. For instance, the larger private enterprises which tend to use the most skilled labor now make up a smaller share of non-agricultural employment. Between 1980 and 1990 there was a reduction of 5 percent. When these enterprises started shedding workers, some of the shortfall was made up by the public sector. But the growth in the public sector employment has also slowed as adjustment programs have required public expenditure cuts,

particularly in countries such as Argentina, Brazil, Chile, Colombia, Costa Rica, Nicaragua and Venezuela (World Bank, 1995).

All of these changes in the structure of the workforce and patterns of economic growth have alerted all the countries of the region to the need for new policies regarding workforce development. The 1994 Summit of the Americas recognized and affirmed the impact of free trade and increased economic integration on raising standards of living, improving working conditions of people in the Americas, and fostering better protection of the environment. The elected heads of State and Governments of the Americas resolved to begin immediately to construct the "Free Trade Area of the Americas" (FTAA).

While the development and expansion of sub-regional trade accords demonstrate rapid progress in lowering trade barriers as well as large gains in trade, there are also some painful social and economic adjustments which may be associated with entrance into free trade arrangements. For example, environmental regulations can either blunt free trade, if inappropriately applied, or enhance free trade, particularly when associated with economic incentives created through the development and utilization of pollution prevention technologies. Government decentralization can improve managerial decisions, increase community participation and ensure better access to services, particularly for the disadvantaged.

Investing in people by improving their skills through education and training directly supports these economic integration and expansion objectives. All of the cases selected in this region represent workforce development models whose primary strategies, values, principles, standards and demand-driven design can teach us valuable lessons in workforce development planning, in areas such as the anticipation of future skill requirements, training the trainers, relating to regional and/or international demand, and open access to women, the poor and low income groups. PROIMI, Chile Joven, SENATI, Telecurso 2000, the Zamorano Pan American School, and Miami-Dade Community College address regional economic issues including high technology, agriculture, manufacturing, and preparing a diverse group of citizens for emerging employment skills requirements.

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REGION: The Americas**Argentina
Planta Piloto de Procesos
Industriales Microbiologicos**

Case Overview

Planta Piloto de Procesos Industriales Microbiologicos (PROIMI) was founded in 1978 in northern Argentina (in San Miguel de Tucuman) by Dr. Danley Callieri, an Argentine scientist. This case represents the upper end of the spectrum in workforce development, as it enables students and current workers in biotechnology to improve their ability to participate in more productive work and it advances the country's abilities to export and increase its economic growth. PROIMI grew out of an expansion plan developed by Argentina's Council for Science and Technology. The plan called for the nation's science and technology infrastructure, including human resources development, in all the provinces of the country. At the same time, the Council hoped to decentralize all the science and technology resources previously concentrated in Buenos Aires. PROIMI emphasizes learning-by-doing and hands-on experience. The focus is applied research on scientific issues related to the broad economic growth of the country (Argentina) and the region (South America). The initial objective was to develop a site outside of Buenos Aires for new industrial processes, technology transfer as well as a center for human capacity development in the fields of microbiology and biotechnology.

Now, PROIMI's main objectives are to:

- Become the main technology transfer center for northern Argentina and Latin America and serve as a Pan-American training center in the fields of industrial microbiology and biotechnology.
- Raise the skill level of the region's biotechnical scientists and applied research community.
- Train Ph.D.'s in applied research and development and management, quality assurance and teamwork.
- Increase the economic competitiveness of businesses whose products could benefit from improved biotechnological processes.

PROIMI has students from all parts of Argentina at the master's and doctorate level in microbiology and biotechnology, two fields of study greatly in demand in Argentina and other Latin American countries. In addition, PROIMI serves a number of professionals from different countries in the Americas through its continuous training programs. These training programs focus on the upgrading of trainee skills and bringing up-to-date their knowledge of high technology instrumentation and management. This training is considered by

policymakers and experts as necessary to improve competitiveness and make progress toward resolving issues relating to equitable free trade in the Hemisphere.

Besides the Argentine students, participants from the MERCOSUR Trade Agreement with countries such as Brazil, Paraguay, and Uruguay, and students from Bolivia, Chile, and Colombia constitute the enrollment. MERCOSUR is the equivalent of the North American Free Trade Agreement (NAFTA) for the Southern Cone of the Americas. It is a free trade agreement among the countries of Argentina, Brazil, Paraguay, and Uruguay. Chile is currently applying for membership. One of the agreements spelled out in MERCOSUR is to perform cooperative applied research in biotechnology and high technology.

The student population in PROIMI is split 50-50 between males and females. Student range in age from 20 to 35 years and come from all income levels. To qualify for entrance to PROIMI, students must demonstrate they have the equivalent of a B.S. degree, although exceptions are made in cases of students who have extraordinary work experience. All the trainees receive either partial or full financial aid as many of the courses are subsidized by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the International Union of Microbiology Associations. PROIMI also trains vocational high school students in environmental microbiology.

PROIMI is not a university and does not confer degrees. PROIMI gives students training certificates valued in a consortium of universities that includes the University of Tucuman, which confers the M.S. and Ph.D. diplomas, two other universities from Uruguay and Colombia, and various firms. This partnership provides PROIMI with the flexibility to do curriculum and related activities generally not found in institutions of higher education. PROIMI also serves corporations and small and medium-sized enterprises (SMEs) by assisting them to upgrade the skills of their employees. PROIMI trainers put a premium on portable skills. Besides hands-on training on new instrumentation and technology, trainees receive training in management, teamwork methodologies and productivity. Hands-on training is a relatively new phenomenon in Latin America, and PROIMI provides valuable services to the public and private sectors for quality control, quality assurance, development of working protocols, and the development of new technologies and processes. These services are performed by the trainees under the supervision of PROIMI staff. Whereas this hands-on experience is unique for the trainees it is critical for helping Argentina and MERCOSUR countries increase competitiveness and expand infrastructure.

PROIMI is a promising market-driven program that in partnership with various universities, schools, industries, and international organizations is serving in the broad economic growth efforts in the region by developing a workforce of talented scientists and technicians to advance science research and technology.

Since 1981, PROIMI has trained a total of 600 trainees, by upgrading the knowledge and skills of technicians in SMEs and corporations, and of individuals with higher degrees in advanced and new technologies and by providing them with highly sophisticated skills

especially in fermentation, quality control, and genetic engineering. PROIMI has achieved the following additional results:

- Some 118 publications were published in international scientific journals (60 percent of these publications occurred in the last 5 years).
- Nineteen doctoral theses were approved. Seven are currently ongoing.
- Two 4-week courses are held each year with approximately 20 students. The short but intensive course work gives workers a chance to participate.

Why This Case Was Selected

PROIMI was selected for its:

- Focus on applied research that directly affects the broad-economic development of the Argentina and South America.
- Focus on skills that will help make the region more competitive in international trade.
- Hands-on training in technology and management-related skills.
- Partnerships with employers and other countries.

Background

Located in the southern part of South America, Argentina is the second largest country on the continent after Brazil. With a population of 34.3 million and rich natural resources, Argentina benefits from a highly literate population (95 percent literacy rate; 96 percent for males and 95 percent for females), an export-oriented agricultural sector (US\$15.7 billion in meat, wheat, corn and oilseed) and a diversified industrial base (an industrial growth rate of 12.5 percent that accounts for 31 percent of gross domestic product (GDP)). Nevertheless, following decades of mismanagement, statist policies and several years of military dictatorship, the economy in the late 1980s was plagued with huge external debts and recurring bouts of hyper-inflation. Elected in the depths of recession in 1989, President Carlos Menem has implemented a comprehensive structuring program that shows sign of putting Argentina on a path of stable, sustainable growth. Argentina's currency has traded at par with the U.S. dollar since April 1991, and inflation has fallen to its lowest level in 20 years. Argentines have responded to the relative price stability by repatriating flight capital and investing in projects such as PROIMI to boost domestic industry. The economy registered an impressive 6-percent growth in 1994, fueled largely by inflows of foreign capital and strong domestic consumption spending. The government's major short-term objective is to encourage exports by reducing domestic costs of production. At the start of 1995, the government had to deal with the spillover from international financial movements associated with the devaluation of the Mexican peso. Despite average annual 7-percent growth in 1991-1994, unemployment has doubled to 12 percent mainly as a result of layoffs in the government bureaucracy and in privatized industrial firms and utilities.¹

¹ CIA World FactBook, World Wide Web, 1995.

Much remains to be done in the 1990s, such as dismantling the old statist barriers to growth, extending recent economic gains and bringing down the rate of unemployment. In this regard PROIMI is making an important contribution, taking advantage of Argentina's largest tradition of internationally recognized scientists and researchers (Argentina is the only Latin American country with three Nobel Prizes in Science and Medicine).

Leadership and Accountability

PROIMI is accountable to Argentina's Council for Science and Technology, who each year assigns different values to five key indicators of performance:

1. number of publications
2. number of theses published
3. amount of consultant services to industries
4. amount of external grants received
5. amount and quality of technology transfer done

Demand-Driven Design

Employers identify high-tech skills they need in their workers. PROIMI is a market-driven program that attempts to serve the broad economic growth efforts in the region by developing a workforce with the high-tech skills needed to advance science and technology in Argentina and its neighboring countries. Employers are looking for qualified science and technology workers and those with the skills for advanced research and development, including those at the doctorate and masters levels. Employers also identified practical experience as a critical need, especially in the areas of industrial microbiology and biotechnology. Many of the national industries (biotech, lactic, pharmaceutical, and wine) need personnel to perform quality control and quality assurance procedures on their products. In addition to its regular courses, PROIMI also offers short courses upon request and designs them to fill the needs of different employers.

Build skills while helping the economy. PROIMI is assisting Argentina and other countries of the region to create a workforce equipped with the necessary high-tech skills to promote research and development on products and nontraditional exports. In addition, PROIMI has agreements with Fleischmann Colombia and Fleischmann Uruguay for the development of a genetically improved baking yeast, it has the responsibility to transfer this technique protocol to these two enterprises. PROIMI also holds an agreement with Agrimont, an Italian company from the former Montedison group for the development of a novel process for alcohol production using a microorganism (*Zymomonas*). Through these business linkages, PROIMI students are receiving practical and immediately applicable skills and at the same time producing products in demand.

Work in partnerships to benefit an entire region. PROIMI's curriculum designers work closely with the Science and Technology Board of Argentina, the Council for Science and Technology of Argentina and with many industries in the region to ground the curriculum in

skills that are in demand and the teaching in practical applications that mimic current wage work. In addition, they work as a training center for Centro Argentino Brasileiro de Biotecnología (CABIO), which is part of the bilateral agreement between Argentina and Brazil. Under this agreement, funding is available for research projects and training initiatives in science and technology; these are important for the economic growth of the different countries of the region. Regarding capacity development, PROIMI focuses its training activities on essential skills for the advancement of the free trade agreement among Southern Cone countries.

Open Access

PROIMI serves men and women of all income levels. PROIMI attracts university graduates so that they can achieve advanced degrees (master's and doctorates) or upgrade some of their skills. PROIMI also provides advanced undergraduate training. Within this student population, PROIMI is accessible to all income levels because of extensive financial aid, that is, to Argentines from all provinces, to citizens of other countries with which there are cooperative agreements, and to women (50 percent of PROIMI students are women). Many students from other countries come on fellowships paid by their governments or by international organizations such as the Organization of American States (OAS) and Pan American Health Organization (PAHO).

Portability of Skills

Provide skills that are needed across an industry. PROIMI courses have an industry focus in order to train workers in skills applicable to a wide variety of workplaces in the industry. Besides the technical laboratory skills in the fields of industrial microbiology, environmental biotechnology, and medical biotechnology, PROIMI students receive training on teamwork strategies and management. They also train in budget management skills.

Furthermore, because most of the skills focus on quality control, quality assurance, and industrial fermentations, they are transferable from firm to firm and from region to region. Because PROIMI receives students from all of Latin America and these students return to their homelands, training methods and strategies tend to be broad and flexible in a way that allows their trainees to receive portable skills. The courses focus on high-tech, hands-on experience so that trainees can obtain analytical and manual skills.

Continuous Improvement

Evaluate the trainees and the trainers on a regular basis. After each course, the trainees perform an internal evaluation. All the thesis-related projects are evaluated by an internal committee. Trainers are evaluated annually by PROIMI and biannually by the Council for Science and Technology. There are certificates for short courses and international training programs. Students who complete the master's and Ph.D. coursework receive a certificate from PROIMI. The University of Tucuman confers the degree.

PROIMI is evaluated annually by a committee of at least six distinguished scientists who are selected by the Council for Science and Technology from all over the country. Changes in the curriculum as well as the infrastructure are made according to the evaluation results.

Public-Private Partnerships

Strong partnerships with a variety of stakeholders broaden PROIMI's focus. Employers cooperate in helping to define their needs which determines what skills are taught. They provide internships for PROIMI trainees and donate equipment. In addition, they pay consultation fees for technology transfer, development of new technologies and procedures, quality control, and quality assurance. Some employers and industry become more heavily involved through cooperative agreements.

Government, industry, education, and nongovernmental organizations (NGOs) have distinct partnerships with PROIMI. One partnership with the University of Tucuman provides for joint training and research. PROIMI's agreements with the various wine and lactic products industries center on research and development. PROIMI serves as a training center for the Argentina-Brazil bilateral agreement. PROIMI is part of an international network of microbiology laboratories sponsored by UNESCO and the International Union of Microbiology Associations. PROIMI has consortiums with four other universities in Argentina and with two more in Colombia and Uruguay. Links to secondary school through a consortium with a vocational high school in Tucuman provide training in agricultural microbiology. The government provides most of the salaries at PROIMI (85 percent) and is heavily involved in monitoring and administration.

Sustainable Financing

Public and private funding support the program. Fifty-five percent of the funds of the operational budget come from the Council for Science and Technology (94 percent from national level, 6 percent from province government), 35 percent from international donors, and 10 percent from services and fees. International donors include the European Union, the InterAmerican Development Bank, and the Sweden Cooperative Agency. These funds are used to finance different projects, equipment, and laboratory materials. Trainees also receive individual funds for training expenses from their national science and technology councils and from organizations such as OAS, the United Nations Development Program (UNDP), and the European Union. In addition, some financing comes from the revenues of consultant services and technology transfer fees. For each trainee, PROIMI costs approximately US\$12,000 annually for teaching its doctoral students, although this is largely paid by fellowships, plus US\$3,000 annually for laboratory materials. The four 2-week courses cost approximately US\$2,000 for each student, although students only pay US\$200 or not at all because these programs are fully subsidized by UNESCO and the International Union of Microbiology Associations.

Replicability

PROIMI works with other biotech training centers. According to interviews conducted for this case study, there are similar projects in other parts of the country as well as similar biotechnology training centers in Brazil, Chile, Cuba, and Mexico. PROIMI collaborates with all of them as part of the MERCOSUR free trade agreement and the bilateral economic agreement between Argentina and Brazil. Many PROIMI alumni are currently involved in the design and development of similar training centers in their countries.

Economic and Social Impact

Stimulate economic growth through quality and trade. PROIMI contributes to the economic growth of northern Argentina and Latin America by helping various manufacturers improve their products and practices.

Help enterprises become more competitive. By training technicians and Ph.D. candidates in the biotech industry, PROIMI adds significant value to the firms and the region's economy. Moreover, new products and processes are constantly developed at PROIMI.

Improve standard of living and professional opportunities. PROIMI graduates experience higher salary levels, more opportunities to travel, and more opportunities to participate in the industry.

Environmentally friendly projects. Twenty percent of PROIMI projects focus on bioremediation and wastewater treatments. According to interviews, all their microbiology and biotechnology projects are environmentally friendly.

Train students with state of the art technology. The fields of genetic engineering, microbiology, and biochemistry are state of the art. Technology has to be changed or upgraded constantly to remain state of the art. One hundred percent of the courses provided at PROIMI are high technology in the fields of industrial microbiology and biotechnology.

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REGION: The Americas**Republic of Brazil
Telecurso 2000**

Case Overview

Telecurso 2000 is a television series that presents a set of basic skills, technical skills, and advanced technical skills training courses. Telecurso was created by Fundação Roberto Marinho (FRM), the non-profit arm of Rede Globo, Brazil's largest television network and the fourth largest private television network in the world. FRM undertook the program in response to business concerns over worker preparedness and an acknowledged lack of basic and technical skills in the workforce. Telecurso 2000, on the air since the beginning of 1995, targets the 50 million Brazilians who dropped out of or never entered Brazil's formal education system. Telecurso has three levels: 1° Grau, 2° Grau, and Professional Training (Curso Profissionalizante). Each level consists of three Fases (phases). Each Fase is a learning unit that builds basic and technical skills:

1° Grau

- 1^a Fase: Portuguese Language, Mathematics, History
- 2^a Fase: Portuguese Language, Mathematics, English Language
- 3^a Fase: Sciences and Geography

2° Grau

- 1^a Fase: Portuguese Language, Mathematics, Chemistry
- 2^a Fase: Portuguese Language, Mathematics, Physics, English
- 3^a Fase: History, English, Biology, and Geography

Professional Training

1^a Fase: (Scope of) Mechanical Processes, Organization of Work, Normalization, Materials, Reading and Interpretation of Technical Mechanical Drawings, Elements of Machines, Technical Calculations

2^a Fase: Metrics and Measurement, Cleanliness and Safety at Work, Quality, Processes of Fabrication, Analysis of Materials

3^a Fase: Thermal Treatments, Surfaces Treatments, Maintenance, Processes of Fabrication, Automation

Through this course structure, Telecurso compacts and translates basic skills into the work environment, by providing instruction that is immediately usable and is broad enough for

general application. It aims to upgrade worker skills through audio, video, and textual distance learning.

Students can choose any one of three ways to learn in Telecurso. The most innovative one is by attending a “telesala,” which is watching the show and doing the accompanying workbook in special training rooms with trained monitors. These telesalas are in workplaces (where employers give time off to attend Telecurso), community centers, churches and even in buses, ships, and prisons.

In curriculum and design, Telecurso 2000 is a joint venture with several partners: FIESP, CIESP, SESI, SENAI, and IRS.¹ Telecurso is financed by FRM and the Federation of Industries of São Paulo (FIESP) and supported by the national industrial training system, SENAI. Telecurso is broadcast every weekday from 6:15 to 7:00 A.M., the time slot right before the popular “Good Morning Brazil” program and is rebroadcast on educational networks throughout the day. The telecasts are filmed entirely in workplaces and are supported by print materials that are widely available in newsstands.

Why This Case Was Selected

Telecurso 2000 was chosen because of its:

- Employment of distance learning methods.
- Focus on unskilled and semi-skilled workers.
- Open access and unique participation structure; multiple entry points into training.
- Wide delivery system.
- Pedagogical rigor.
- Comprehensive partnership with industry as driving force.
- Ability to support the worker at many different phases of skill development.

Background

Until about 1960, the Brazilian education system was deficient at every level, from primary school through university. Higher education was accessible to only the wealthy. The nationwide literacy rate was only 50 percent and closer to 33 percent in rural areas.² To remedy this, the government launched a program to eliminate illiteracy in Brazil by focusing on teacher training, primary school attendance, and a government adult education initiative. Today, Brazil's national adult literacy rate is over 80 percent according to the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

At the university level, competitive entrance examinations and the building of branch campuses in small communities increased enrollments fivefold during the 1960s. In 1972,

¹ FIESP: Federação das Indústrias do Estado de São Paulo; CIESP: Comissão das Indústrias do Estado de São Paulo; SESI: Serviço Social Da Indústria; SENAI: Serviço Nacional De Aprendizagem Industrial

² UNESCO

professors received substantial pay raises which allowed them to concentrate on teaching instead of taking on extra jobs. By the 1980s, Brazilian university graduates were especially well trained in scientific and technical skills, and many more graduates were from lower-income backgrounds.³ However, at the secondary level, graduates and non graduates were not as well prepared. Less than 40 percent of the relevant age cohort is enrolled in secondary education and it is widely understood that the quality of the education at this level leaves much to be desired.⁴ Brazilian industry and employers noted a lack of job and basic skills in non-university graduate workers. Telecurso 2000 is one vehicle to redress this skills gap.

Leadership and Accountability

Heavy involvement of experts and industry in administration. Telecurso has an extensive governing board made up of key leaders and thinkers with credentials in education and training. These board members ensure that the learning is pedagogically sound, appropriate, and accessible. It also ensures links to the formal education and training system. Many administrators and board members are world experts, who bring their insight, experiences, and research on skills trends to the design of Telecurso's units.

Telecurso's content is defined by an extensive staff of experts under the direction of representatives from each of the partner organizations and a group of pedagogical consultants. Each level has a commission of approximately 15 members who come as experts in the field. They strive to ensure the curriculum is flexible, pedagogically rigorous, focused on practical application of theoretical concepts according to skills trends, open to all, and linked to the formal education and training system.

Demand-Driven Design

Telecurso's design is demand-driven in that it serves the needs of workers and the needs of employers. Its outstanding features are:

1. *Practicality.* Telecurso translates basic skills into the work environment by providing instruction that is practicable for workers and that follows employers' lead in emerging skills needs. By filming in workplaces and creating workbook exercises derived directly from work situations, Telecurso's skills are applicable from day one in the workplace. Called "contextualization," Telecurso prides itself on putting concepts into practical life-like situations. Telecurso further enhances the appeal of its skills training approach to the public by pulling in popular actors to star in some episodes.
2. *Pedagogical rigor and flexibility.* Telecurso is put together by leading experts in technical and educational fields. Telecurso focuses on using the practical to illustrate the

³ *Compton's Encyclopedia*, 1995.

⁴ Knight, Peter T. "Destined to Learn: Why A Revolution in Learning Will Occur in Brazil, Russia, and South Africa." A paper presented to the Second International Conference on Distance Education in Russia, 2-5 July 1996, Moscow, Russian Federation. Reproduced by the Electronic Media Center at the World Bank and available over the World Wide Web at <http://gopher.worldbank.org/html/emc/FY96projects/leapfrog.html>

theoretical while teaching both. The television portion is shot entirely in factories and workplaces and uses animation. There are no classrooms or traditional teaching shots. To solve the exercises in the workbooks, the students must use their knowledge and secondary materials, including journals and books, much as they might have to in the workplace. Modules are independent and can be done in whatever order students choose. In addition, the courses are constructed to teach skills that are applicable to many industries and include other nontechnical work skills such as quality assurance and work environment.

3. *Convenience and flexibility in participation.* Telecurso is aired at a popular viewing time and repeated often on Brazil's largest television network, with many workers watching it before they leave for work or taping it to watch later. With three ways to participate ranging in commitment from attending a monitored telesala to watching at home, Telecurso meets workers at whatever level they are able to commit. Each Grau is a separate telecast and they run back to back, so workers can join the program at any time and/or at the specific point where they need to improve their skills. If a worker only wants to work on his or her basic math skills, the worker can just tune into the telecasts for the mathematics portion of the first two Fase of the first Grau. Another worker with different needs can watch the entire Grau the whole way through and then move to the next one. Yet another worker, perhaps one with better basic skills, need only watch Curso Profissionalizante. This user-centered and controlled training allows a level of customization and flexibility not possible in many programs. In addition, supporting materials are easily accessed. Tapes of the programs are also sold for a small fee. The workbooks that accompany the course are widely available at newspaper stands.
4. *Progression of skills development over time.* Telecurso's three levels (1° Grau, 2° Grau, and Curso Profissionalizante) are broadcast back-to-back every weekday in 15 minute time slots. Each Fase takes approximately six months to complete and they are rotated through in order in each Grau. The first two levels are more general subjects such as mathematics and physics. The third level is more specific to mechanical, machine, and other skills. Each level has three phases (1 Fase, 2 Fase, and 3 Fase), with different subjects and increasing levels of difficulty and technical sophistication. These levels and subjects allow the student to grow and develop over a period of time. In addition, Telecurso allows participants to enter the system at different points, corresponding to their current level of sophistication and their personal goals for skills improvement.
5. *Linked to formal education and training system.* Telecurso participants can earn a Certificado de Conclusão (somewhat comparable to a trade certification in the United States) from the state Secretary of Education by fulfilling a series of requirements, including two exams. In addition, some phases also lead to certificates. Some courses (such as the current Curso Profissionalizante Fase Mecânica level) are sufficient preparation for the SENAI (the Brazilian national training system) certification exam for that technical specialty.

6. *Monitored telesalas link to employers.* By having more than 1,500 telesalas, including 300 factories, participate as monitored sites for Telecurso viewing and workbook completion and involving business in the design and execution of the programming, Telecurso ensures that what is taught and how it is taught respond to the needs of business.

Open Access

Because of its delivery medium and instructional design covering varying levels of education, Telecurso is extremely accessible. Over 70 percent of Brazilian households have a television set and those without one have access to over 1500 telesalas.⁵ Anyone may watch and participate for free. Rede Globo reaches 99.8 percent of the 4974 Brazilian municipalities and boasts ratings of 74 percent in prime time, 56 percent in the morning, 59 percent in the afternoon, and 69 percent in the evening.⁶ Using television allows a large percentage of the population to access the project, even in the remotest areas. No travel (a major impediment in many places) is necessary as workers can learn on their own time and on their own level. The workbooks tie to the television series and help to build skills using exercises, quizzes, and instruction in lessons.

As previously discussed, open access is further enhanced by the multiple entry points provided by Telecurso's curriculum and broadcast structure (see "Demand-Driven Design," point 3). In addition, the delivery medium allows workers to choose from a broad range of participation options in the courses, from heavy, supervised involvement at monitored locations to unsupervised at home, thus meeting a variety of workers' needs and life situations. In fact, access to Telecurso is so open and varied that World Bank visitors even observed Brazilian sailors aboard ship viewing Telecurso in a monitored telesala.⁷

Portability of Skills

Instruction topics in the 1° Grau and 2° Grau levels range from Math to Portuguese to English to Geography to Elements of Machinery to Fabrication Processes to Automation to the Organization of Work to Reading Technical Drawings to Quality Control. They are broadly applicable across different industries and fit basic skills types of requirements. Curso Profissionalizante is nevertheless applicable across all subsectors of the manufacturing industry, firm to firm and region to region. This portability is central because one of the major funders is a federation of industries and wants the curriculum it pays for to have the widest applicability to its many different member employers.

Continuous Improvement

⁵ Ibid.

⁶ RedeGlobo Fact Sheet, available on the World Wide Web at <http://www.redeglobo.com.br/redeingl.htm>

⁷ From pictures taken by the Electronic Media Center at the World Bank and viewable on the World Wide Web at <http://gopher.worldbank.org/html/emc/FY96projects/>

Curriculum commissions. At the program level, the Grau-specific commissions of experts from education, training, and industry that set Telecurso content constantly review and update course offerings. The involvement of business in financing and administration leads to constant updating of instruction to meet emerging skills demands.

Workbooks and certification exams. At the trainee level, the workbook exercises provide the mechanisms to gauge student progress. Telecurso participants can also measure their progress and their level of mastery by fulfilling the testing requirements for the Certificado de Conclusão, additional certificates of course participation, or the SENAI certification exam for a certain technical specialty. The teaching in Telecurso is revised by industry and pedagogical experts to keep pace with industry change and the resulting revisions in certification exams.

Public-Private Partnerships

Telecurso's extensive partnership at all levels of industry and government and its link to SENAI, the national training system, is a powerful force behind its acceptance and success in both communities and by the Brazilian public. The contributions of individual partners provide the necessary ingredients for a responsive, flexible, pedagogically rigorous, and practical program to provide training outside the formal education system. That Telecurso 2000 is funded by an industry federation heavily contributes to its responsiveness to employer needs. Education and training partners provide pedagogical support and linkages to formal education and training. The secretariat level of government is also involved through awarding Certificado de Conclusão by the state Secretary of Education. In addition, some phases also lead to certificates or SENAI exams for certification.

Business buy-in at the individual firm level provides the ideal implementation channel. The real target location for Telecurso 2000 is not the worker at home, but the worker in industry through an employer-sponsored telesala. FRM trains teaching assistants to monitor the telesalas, administer drills, assist workers, and generally facilitate learning. Hundreds of factories participate in this manner. The factories do this because the course makes up for what workers don't learn in school, it increases the skills of workers they already employ, and it upgrades the skills of potential workers.

Sustainable Financing

Telecurso 2000 is financed by FIESP and supported by CIESP, SESI, SENAI, IRS, Rede Globo, and the government (see endnotes for acronyms). FIESP contributes US\$43 million and FRM contributes US\$20 million.⁸

Replicability

⁸ Knight, Peter.

Although Telecurso's overall cost may present a barrier to replication for some, its approach provides an interesting set of principles and practices worthy of consideration in replication: the distance delivery system, the practical-theoretical instructional mix delivered through visual and textual media, the open design, the pedagogical rigor, the unparalleled partner organizations, the focus on upgrading the skills of all types of workers, and the involvement of industry. Telecurso is serving as a model for other countries implementing distance education and education through electronic media, including South Africa and Russia.⁹

Economic and Social Impact

Because Telecurso is by its medium reaching many viewers in many different (and often informal and unmonitored) settings, one cannot conclusively track participation rates. As of the end of March 1996 (one year into the program), there were 1,517 organized telesalas with FRM-trained teaching assistants. The total figure for attendance at these telesalas at that time was 40,423 students. An additional 575 telesalas serving 14,720 students were scheduled to begin operation soon with support from the Bradesco Foundation. There is no record of the number of students studying at home or in informal groups.¹⁰ According to Claudio de Moura Castro, Telecurso 2000 pedagogical consultant, the total number of Brazilians watching Telecurso likely runs in the hundreds of thousands. The series is well known and followed throughout Brazil.

Telecurso's next step in increasing its economic and social impact is to bring Telecurso to the Internet and establish interactive Internet-based provision of training services.

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⁹ Ibid.

¹⁰ Ibid.

REGION: The Americas

**Republic of Chile
Chile Joven**

Case Overview

Chile Joven (The Youth of Chile) is a national education and training program that provides Chilean youth with basic technical and employability skills to help them escape poverty. Chile Joven was created in 1991 by the Government of Chile with a loan of US\$80 million from the InterAmerican Development Bank (IDB). As Chile's growing economy moved toward democratic rule under former President Aylwin, the nation's youth, most of whom are poor, were becoming increasingly marginalized and dropping out of primary, middle, and high schools at unacceptable rates. A diagnostic study of primary, middle, and high school dropout rates as well as poor youth employment rates (10.6 percent in 1995) attributed the increasing marginalization of youth to their lack of technical and basic educational skills. These skills would help disadvantaged youth participate in Chile's growing economy.

Chile Joven functions *across* several Chilean ministries to provide the nation's young people with access to entry-level technical skills, training, and job experience. During the first five years of the program, youth in Chile Joven typically spend between one to six months learning at workplaces, and spend the rest of the time in vocational or technical schools. As increasing numbers of employers participate in Chile Joven over the next five years, program designers plan to institute a system by which youth learn at work and in school over a period of several years, as in Germany's dual system. (For a detailed description of the dual system, please refer to the separate case study on the dual system). Alongside the formation of Chile Joven, the Chilean government developed a national initiative that stimulated demand for training *the already employed* through Servicio Nacional de Capacitacion Empleo (SENCE).

Chile Joven's primary objectives are:

- To move youth from the marginal sector of the economy to the productive sector.
- To build human capacity to overcome poverty, to promote sustainable economic growth, and to enhance coordination among public and private agencies.
- To ensure transparency and coordination among training providers, consumers, trainees, and the governmental agencies responsible for funding.
- To develop a market-driven education and training system in which government acts as facilitator/broker/co-investor.

Chile Joven is reviewed and controlled by the Chilean Congress and is externally evaluated by Chilean experts.

Although Chile Joven was initiated and is managed by experts within the government, it partners with the private sector to encourage the country's development of human capital. It is based on creating incentives for training in support of customers (employers, youth) and suppliers of training (trainers). Through Chile Joven, a workforce development system was created for marginalized youth and displaced women.

As an external investor, the IDB played a crucial role as it required that different ministries to be involved in the planning and design, so that they would "own" the program. Since 1991, an average of 22,000 youth per year have been trained in manufacturing and service sector workplaces. To date, some 90,000 have completed their training. Between 1992 and 1995, Chile Joven trained 18 percent of all the unemployed youth between the ages of 18 and 24. In 1996, an additional 10,000 will be trained. Chile Joven operates in 13 regions, extending to all of Chile. It trains men and women of all ages; however, the program focuses on youth aged 14 to 24.

Although the system faces many challenges as it enters its second 5- year phase, its unique feature is the use of public funds to create private sector demand for training in the interest of training providers, employers, and youth. Whereas employers pay a national training tax of 1 percent of payroll for training incumbent workers, Chile Joven is funded by several ministries that empower Chile Joven's managers to issue requests for proposals (RFPs) for training. Anyone may compete to be a trainer. However, each application is carefully scrutinized to ensure that would-be-trainers have the appropriate experience and have found employers who are willing partners in the training. Youth must compete for training places by showing that they have secured a training place with a particular employer.

Fifty-eight percent of Chile Joven graduates are now a part of the formal labor market, compared with a control group participation rate of 35 percent. A 6- to 8-month follow-up after each course of training documents an almost 2-to-1-ratio. Income of Chile Joven graduates is usually 12 percent higher, and graduates are reported to have less difficulty entering the formal labor market.

Why This Case Was Selected

Chile Joven was selected for its:

- Use of government incentives to develop a private-sector market for education and training of poor youth.
- Broad, national scope.
- Focus on bringing large numbers of marginalized youth into the labor market.
- Ability to demonstrate how a middle income country learned from examples in many other highly and less developed countries.
- Avoidance of exploitation by youth who do not need the program.
- Focus on transparency and intragovernmental coordination.
- Close ties to market demands for skill requirements.
- Focus on deliverables, placement and graduation rates.

- Developing a virtuous cycle where trainers must keep improving their skills to find work.

Background

With a population of 14 million and a 94-percent literacy rate, Chile appears to have advanced to a prosperous, essentially free market economy after 16 years of dictatorships. Although the economy still depends greatly on world copper prices, other Chilean products are traded on the international market, with exports totaling US\$11.5 billion (1994). Life expectancy is high in Chile (75 years), and the population is growing at 1.5 percent annually. Legal frameworks are in place to protect workers, including contract rights, employee rights, wage and other dispute mechanisms. Despite an unemployment rate of only 6 percent, many Chileans, particularly young people, live under very poor conditions on the margins of the economy. School dropout rates are high; only 39 percent of children complete primary education, 27 percent complete secondary, and 3.9 percent complete post-secondary education. Under the previous Aylwin administration, when Chile Joven was founded, spending on social welfare rose steadily. At the same time business investment, exports, and consumer spending also grew substantially. Growth in 1991-1994 averaged 6.5 percent annually, with an estimated 1 million Chileans moving out of poverty.¹ The new president, Eduardo Frey, who took office in March 1994, has emphasized social investment even more, supporting the further development of the Chile Joven system.

Leadership and Accountability

Managing youth's expectations for a better economic future by demonstrating open and transparent access. Aylwin and his administrators developed Chile Joven because they were concerned about the lack of a system that would help youth build trust in their future and at the same time reduce high rates of youth unemployment throughout the country's 13 regions. A major danger was the potential abuse of the program by youth who were not poor: they might use the program as a springboard. Instead, the program had to be focused to guarantee access to youngsters who were disadvantaged. To resolve the trust issue, policymakers decided to focus on two employment strategies, training and certification. The idea was to provide training basic enough to discourage its misuse by those who were already in the labor market. A separate strategy was developed by SENCE to upgrade the skills of workers already employed. With the advent of democracy a new set of expectations had come about, and Chileans worked to develop a system that could build on and manage these expectations. Funding from the IDB required Chile to demonstrate transparency and coordination among all the players involved. Chilean policymakers developed an organizational structure to work across three government ministries and to hold them accountable for their contribution to the system. This structure is reflected in organizational charts to show the flow of responsibility. To ensure transparency in the market, Chile Joven relies on generally accepted bidding procedures, by which a bid announcement (request for proposal, or RFP) spells out the terms of the award and criteria for selection of the winning bidder. Potential trainers must submit a formal proposal which is evaluated against all others. Most important, potential trainers must

¹ CIA World FactBook, World Wide Web, 1995.

demonstrate that they have a “customer” (an employer who is willing to train youth under the proposed criteria) for the training award.

Chile Joven’s strategies were developed by learning from a number of developed and less developed countries. For example, program designers:

- Determined the best strategy for Chile, based on benchmarking how other Latin American countries were introducing youth into the labor market.
- Found that other methods were not cost-effective, not tied to demand, and not providing access for youth in remote areas.
- Embarked upon a strategy of stimulating demand for training and promoting the development of a system of youth apprenticeships. A key theme for the government was decentralization.
- Encouraged competition among trainers to develop courses.
- Required trainers and youth to demonstrate they had the full commitment of the enterprise before they could be considered.
- Required employers to provide 3 months of work-based learning opportunities for youth, who would be supervised by SENCE specialists working in one of the training centers located in each town throughout the country.
- Allow anyone to bid for training funds. However, Chile Joven requires trainers to demonstrate in their proposals that they have both the capacity to train and customers (employers) who want the training.

Demand-Driven Design

All the stakeholders gain by participating in Chile Joven. Each stakeholder—employers, trainers, young persons, and training supervisors in each municipality’s labor office—gains by participating in Chile Joven. Employers gain access to training specialists and to youth who are paid a stipend by the government. Youth gain access to marketable skills. Trainers gain access to funds and incentives to build lasting relationships with employers. Training supervisors build relationships with employers.

Closing the skills gap from unskilled to participating in the global economy. Although Chile Joven trains youth for entry-level work at a fairly low level of skill, in the second phase of Chile Joven (1995-2000), an analysis of future skill needs will be conducted. This supports Chile’s effort to modernize its industries and training places to prepare youth to participate in the global economy, according to President Frey.

Providing comprehensive labor market information to youth and their families. The Ministry of Labor makes available comprehensive information about labor market needs to each municipality’s placement or labor office. Youth and their families visit the labor office to get information about jobs, training, and unemployment help.

Identifying future skill requirements. By linking the training directly to employers, trainers, the local labor office, and SENCE (the coordinating body of the three ministries), Chile

Joven can adapt itself quickly to changing demands for skills. For the year 2000, Chile would like to create 500,000 new jobs. At the same time, Chile wants to increase its exports from US\$9.2 to US\$20,000 billion. This effort will require a productivity increase from 2.1 to 3.5 percent. Education and training is considered a key factor in reaching the increased productivity required.

Requiring trainers to respond to market needs. Trainers have to demonstrate their expertise on the bid documents and prove they have the support of an employer. Trainers must present their curriculum vitae, indicating their academic background, their specialty, the type of activity they are doing now, professional development, teaching experience within the last 5 years, work experience, and any other experience. All the applicants have to fulfill the requirements stated in the RFP. If, after the first bid, trainers don't demonstrate an improvement of their training, they are disqualified in that the state will not invest in them further.

Attempt to control quality of training at workplaces. Training specialists from the municipal labor office regularly visit workplaces where youths are being trained, and try to make sure that youths are indeed learning the skills they are supposed to be learning. To date, there appears to be no curriculum framework, competency lists, or even skill standards used in the system. Program designers stress that they would like to do a better job of controlling quality of training experiences at workplaces. In this they walk a thin line. On the one hand, they want to keep employers. This means that employers have to see that the training does not interfere too much with the production process. On the other hand, if youth are only put on production tasks, they fail to learn the broader skills they need, and do not learn about how the various tasks in production relate to each other.

Focus on deliverables by tracking specific indicators. In the case of Chile Joven, the indicators used to track performance and deliverables appear to be the same. Reviewed periodically, the indicators of performance are:

- Coverage of the program, at least 80 percent of unemployed youth must be trained.
- Work experience, 100 percent of youth have received practical work experience.
- Responsiveness of training to the demand, in the proposal the delay between receiving funding and initiating the training cannot exceed 90 days.
- Comparison of training courses offered in the proposal to the ones actually delivered.
- Budget, as each trainer is paid on a per-student basis, the trainer and the training center are effectively penalized for dropouts.
- Follow-up on all graduates tracked by the training center.
- Follow-up on the relationship between the training centers and enterprises, tracked by counting how many new training initiatives occurred in a given time. Supervisors from SENCE are responsible for the implementation of the program in all the regional offices.

Open Access

Accessible all disadvantaged youth, including those in rural areas. Chile Joven works with Chile's disadvantaged youth (14 to 24 years old) through three types of programs: microenterprise development which provides mostly rural youth with technical expertise and credit support (this program covers approximately 9 percent of the total Chile Joven population); guaranteed 3 months' workplace experience plus 300 hours education and training; and the dual system program in which a contract guarantees youth a training place and training wage (40 percent of this wage is subsidized by the government, 60 percent is paid by enterprises).

Difficulty in attracting women and girls into non-traditional (manufacturing) occupations. In most Latin American and other countries, women typically do not enter manufacturing occupations. It is not clear that Chile Joven is attempting to change this norm. However, program designers emphasize that Chile Joven's programs are accessible to all, provided applicants meet the most basic requirements. These requirements are distributed by means of local labor offices in each town throughout Chile. The training center tends to be centrally located in each town.

Portability of Skills

Chile Joven provides youth with portable skills among firms and regions. Chile Joven programs emphasize workplace skills including technical, vocational, and human interaction, cultural skills such as punctuality; and communication. The latter are general skills which are portable. However, a recent evaluation of the system indicates that employers must play a more active role in helping to define what skills are needed. In this way the program could do a better job of ensuring the skills acquired in one workplace are indeed portable. However, although education is highly valued in Chile, to date no bridging mechanism exists to help people upgrade their education throughout the life span.

Continuous Improvement

Chile Joven has completed its first 5-year phase. Analysis of this phase resulted in significant changes that will be introduced in the second phase, starting in 1997. The biggest change can be found in a much broader effort to build a 3-year long dual system of education and training in school and workplaces along the German model. This endeavor will require the development of a comprehensive curriculum and the certification of skills, if not skill standards. (For a detailed discussion of the dual system, please see the case "Federal Republic of Germany: The Dual System of Education and Training.")

Public-Private Partnerships

Employers get access to more skilled labor which helps them increase the productivity of their enterprise. Thanks to Chile Joven, employers gain access to additional labor that costs very little. Furthermore, they get access to a work-site trainer who improves not only the performance of the trainees but also the productivity of the enterprise. Expanding the number of employers who participate in Chile Joven is a major challenge for the second

phase as there is no culture of social compact among Chilean employers. Policymakers want to get more employers involved to increase the level of social compact.

Employer investment is low, but growing. Employer direct investment in Chile Joven is minimal, although employers do invest 1 percent of payroll in a training tax (for current workers) and provide tools and training places for youth. To date, the majority of employers participate in Chile Joven by providing training from 1 to 6 months. As more employers participate and recognize how participating serves their own interests (fewer errors, higher quality, profits), they will presumably be willing to extend the training period and invest more in the process. According to interviews with Chile Joven planners, employers plan to establish a dual system method to learning at work and in school (see the case “Federal Republic of Germany: The Dual System of Education and Training”). By the end of the next 5-year period, employers hope that the majority of poor Chilean youth will be in a 3-year education and training program similar to Germany’s dual system.

Stakeholder partnerships are weak and need to be built. There is no tradition of partnership between employers and government or nongovernment organizations (NGOs). Building this partnership is one of the major tasks of Chile Joven and its parent organization, SENCE.

Using public sector mechanisms to stimulate and grow private sector investments. The public sector plays a key role in Chile Joven. At the helm is the Ministry of Labor, which manages SENCE, FOSIS, and the Ministry of Education, each represented by a parallel training organization that links it to the market. The public sector finances Chile Joven by means of funding trainers, their customer enterprises, and youth with living stipends.

Sustainable Financing

Financing by Chile’s Ministry of Labor will gradually be replaced by employer investments. As a transitional measure, Chile Joven is financed entirely by the Ministry of Labor. As private sector investment becomes more prevalent, employers are recognizing that Chile Joven saves them recruiting and training costs. According to Chile Joven organizers, the financing system is slowly being increasingly supported by the private sector. Currently, approximately US\$750 are required to train each individual in Chile Joven. As Chile Joven moves into the second phase and applies the dual system method, it will require employers to pick up much of the tab. Financing Chile Joven will likely be modeled after SENCE, a parallel program for the upgrading of skills of current workers which is financed via a payroll tax of 1 percent.

Replicability

Both highly developed and less developed countries might consider replicating Chile Joven, as the program is market driven and uses public sector financing as a catalyst to stimulate demand and supply of training in the market. Replicating Chile Joven was one of the topics in a recent summit of Human Capacity Development in Tegucigalpa, Honduras (April 1996), where Chile Joven shared its experience with different foundations and organizations from

Argentina, Colombia, and Uruguay. Argentina now has a program called Argentina Joven. Moreover, SENA in Colombia is undergoing strategic planning and communicating with Chile Joven to learn how to incorporate some of the strategies being used.

Economic and Social Impact

Chile Joven promotes economic growth in that it moves poor youth on the margins of society into productive employment. This growth occurs in two ways: by increasing the productivity of the individual, firm, region, and nation; and by reducing the demand for social safety supports. Most graduates find entry level jobs after training, allowing them to move from poverty to productive employment. Twenty-nine percent of Chile Joven graduates go into the manufacturing sector, which employs 17 percent of the total population. Twenty-two percent of Chile Joven graduates go into services (25.7 percent of total employment), 18.2 percent go into commerce (17.9 percent of total employment), and 30.7 percent go into other sectors (39.3 percent of total employment).

Chile Joven supports the training and education of females for nontraditional occupations. However, participation of women and girls in nontraditional occupations is weak, as it is in most countries, where occupations are stereotyped and reflect uneven distribution. The distribution between males and females in Chile Joven is approximately the same.

Extensive participation by all parts of a society is a key feature of healthy democracies. Chile Joven contributes to this process in at least three important ways. First, mobilizing and then moving unskilled youth to where they have marketable skills enables them to participate in work, to generate tax revenues, and, most important, to have a sense of their value and status in society. Second, mobilizing employers to take on the training of youth at their workplaces both increases employers' participation in the system and brings in important financial contributions not available to the public sector. Third, although there is no direct connection between a nation's income and its system of government, increased economic participation tends to lead to increased civic responsibility and participation, that is, to democracy.

A total cost of US\$750 for each youth leverages a 12 percent increase in income that takes 2 to 3 years to realize. Fifty-eight percent of Chile Joven graduates are now a part of the formal labor market, compared with a control group participation rate of 35 percent. A 6- to 8- month follow-up after each course of training documents a 2 to 1 ratio.

Approximately 60 percent of the youth completing the program gain employment. The income of Chile Joven graduates is usually 12 percent higher than nonparticipants', and graduates are reported to have less difficulty entering the formal labor market.

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REGION: The Americas

**Republic of Honduras
Escuela Agrícola Pan-American
“Zamorano”**

Case Overview

Located in the countryside about half an hour from Tegucigalpa, Honduras, Zamorano is a three-year secondary school that offers an additional fourth year of post-secondary studies. Zamorano is incorporated in the United States. The school prepares some 700 students from 19 Latin American and Caribbean countries and 12 other countries for leadership positions in agriculture, agribusiness, and public policy. The school was started in 1942 by Samuel Zemurray of the United Fruit Company of Honduras. Zemurray, a major shareholder of the United Fruit Company, wanted to pay something back to Honduras for the wealth he had accumulated in the banana business. He did so by creating an internationally renowned school at which students could learn skills that would later serve them in their own communities.

Although the agricultural industry is still largely considered the province of males, 25 percent of Zamorano's students are female. Zamorano is regarded as a place where women can excel. Most students start at age 17 or 18; however, they can apply between the ages of 16 to 24. Students come from all ethnic groups and economic backgrounds in Latin America and the Caribbean. The school's strong scholarship program entirely supports 30 percent of the student body with scholarships. Another 30 percent have partial support, often from their home country, and 40 percent pay full tuition of US\$16,000 annually.

While visiting the school one is tempted to think of Zamorano as the “West Point of Agriculture.” Dressed uniformly in blue work shirts and jeans, all students must go through the same rigorous schedule and discipline. The daily routine includes rising at 5:00 A.M. and extinguishing lights by 10:00 P.M. Except for meal breaks and study time, Zamoranos can be found throughout the day “learning by doing agriculture” in fields, labs, stores, stables, classrooms, or community development projects. Hands-on modules cover the gamut of the industry, from beekeeping to genetic research to planting crops which supply the school with its meals. At Zamorano, learning-by-doing occurs in teams of six or eight students. They are coached by an instructor or by a senior student practicing her leadership skills. Classrooms are led by professors, who usually have Ph.D.s in their fields of study. Interviews with graduates indicate that the Zamorano training, though often arduous, provides them with significant advantage when they enter employment, establish self-employment, or go on to a 4-year university, often in the United States. Graduates state that the habits of mind, hard

work, and self-discipline they acquire at Zamorano help them throughout their lives. Zamorano's primary objectives are:

- To develop leaders in agriculture throughout Latin America by emphasizing hands-on experience and strict discipline. Together these build self-confidence and enable the graduates to demonstrate leadership which stems from their character and their attaining the necessary skills.
- To provide a first-rate, integrated agricultural education that includes the key elements of sustainable agriculture in the tropics, agribusiness, food technology, natural resources management, and rural development.
- To produce graduates who can appreciate the value of work, and are prepared to continue learning throughout their professional lives.
- To produce a learning experience that is founded upon the principles of Pan-Americanism, learning-by-doing, academic excellence, character formation, and leadership development.
- To enable graduates to advance to universities in the United States and other countries and to use the entrance requirements of those institutions as an important benchmark for the school's leadership.

Several factors contribute to the school's unique position in Latin America, and perhaps the world. Students come from all walks of life. Once in the school, they appear to leave their economic or social status at the door and work side by side with each other in small teams throughout their education. Students learn by doing, in teams, and gain early experience in leading others by example. Students experience the direct consequences of their actions. If crops fail or turn out well, they are held responsible except in case of adverse weather conditions. If their exams reveal that they haven't been studying enough, they must stay on campus during the weekends until their performances improve. At selected times, students are put in the position of teaching. For example, they work alongside an instructor who teams with a cooperative of poor women to teach them how to harvest, produce, and then market loofah sponges for export. Faculty work with agribusinesses or various ministries of agriculture to help solve complex problems. Often, they involve the students in their work. Students learn how to market the products they have grown at the school, and people come daily to the school store to buy ice cream, fruits, vegetables, cheese, honey, and other products. Students may also meet the graduates and other experts who come together for short courses or conferences in the school's Kellogg Center. Perhaps the unique feature of Zamorano is that the school, despite economic and political upheavals in Honduras and surrounding central American countries, has managed to grow, prosper, and build up its endowments so that a significant number of disadvantaged students can participate and find high-level positions in the countries of their choice.¹

Background

¹ Author's and Luis Salicrup's interviews with Zamorano students and faculty in March 1996.

Although Zamorano is a registered corporation in the United States with an office in Washington, D.C., and with U.S. trustees, it is located in Honduras, one of the poorest countries in the Western Hemisphere. Agriculture, the most important sector of the economy, accounts for 28 percent of the gross domestic product (GDP), employs 62 percent of the labor force, and produces two-thirds of exports. Productivity remains low. Many basic problems hinder the economy, including rapid population growth, high unemployment, inflation, a lack of basic services, a large and inefficient public sector, and the dependence of the export sector mostly on coffee and bananas, which are subject to sharp price fluctuations. A far-reaching reform program, initiated by former President Callejas in 1990 and scaled back by President Reina, is beginning to take hold.²

It is instructive to contrast Zamorano's high environmental standards and practices with those of the surrounding country. Population and other pressures are causing deforestation, the result of logging and the clearing of land for agricultural purposes. Land degradation continues and soil erosion is hastened by uncontrolled development and improper land use practices such as farming of marginal lands. Mining activities pollute the country's largest source of freshwater with heavy metals and several of its rivers and streams.³ Honduras' urban population is expanding with a growth rate of 2.66 percent (1995). Forty-three percent of the country's population is under the age of 14.

Why This Case Was Selected

Zamorano was selected because it:

- Is able to develop in its students habits of mind and heart which produce leaders and which serve them well throughout their lives.
- Integrates learning by doing with strict discipline produces highly skilled graduates within a three year time period.
- Demonstrates that it is possible to educate all students—regardless of economic or social status—to very high quality standards.
- Prepares graduates for self-employment as well as for highly competitive jobs in the formal sector.
- Its students and faculty work with many NGO's to train micro-entrepreneurs to produce better agricultural products throughout Honduras.
- During the last 54 years, 3,784 Zamoranos have graduated from the Agronomo (Agricultural) Program and 453 from the Ingeniero Agronomo (Agricultural Engineering) Program which was initiated in 1986. They are active in various professions such as production, marketing, community development, teaching, research, government, banking, and business. Many ministries of agriculture throughout Latin America are staffed by Zamorano graduates.

Leadership and Accountability

² CIA World FactBook, World Wide Web, 1995.

³ Ibid.

The school is accountable to many stakeholders. Zamorano's faculty and staff hold themselves responsible for the success of their graduates, which they measure by means of employer feedback and self-reports of graduates. The school is accountable to a U.S. based Board of Directors who governs the corporation. Zamorano is also accountable to a considerable number of donors who support the school's programs in a number of ways. Zamorano is not accountable to the government of Honduras or any other government, and considers this to be an advantage, given the area's political history.

Demand-Driven Design

Students and faculty learn by experiencing market requirements first-hand. Zamorano modifies and adjusts its programs according to demands in the marketplace. New scientific and technological developments are used to anticipate the skills that will be required 5 to 10 years in the future and the curriculum is periodically adjusted for suitability. Employers participate actively in the curriculum review and are increasingly funding the fourth year of education of students as they see how it benefits them. Zamorano students interact on a daily basis with the private sector by selling their own products in the school market and working with local farmers, entrepreneurs, and public policy managers.

Training requirements are tied to the international market. Because Zamoranos come from different countries and often continue their education at universities, including those in the United States, there is regular connection with the international education market. Zamorano students work with traditional export crops and participate in limited export related activities (okra, flowers, and shrimp). There is also an active in-service training program in farms and agribusinesses in the United States for the school's graduates. Zamorano faculty and administrators, as well as students, have extensive relationships with the private sector, governments, and alumni organizations in 20 different countries. There are many requests for the school's graduates, and the relationships with employers provide the school with a good sense of what skills and knowledge are needed. Various other "customers" of Zamorano also help to review the school's programs. For example, Zamorano gets many requests for "extension services." The private sector also works closely with Zamorano to improve export capacity and large-scale production.

Faculty, together with employers identify future skill requirements. Future skills are identified by Zamorano faculty who also solicit the advice of employers of graduates. This occurs by means of formal curriculum reviews every 3 to 4 years and through informal networks.

Senior Ph.D. faculty teach "academic" coursework while newer instructors guide students through the hands-on modules. A large proportion of Zamorano's faculty is recruited from former students. Many of the instructors work on a variety of external projects and claim they feel pressure from world donors to move beyond the agricultural focus. Academic faculty generally hold Ph.D.'s, whereas module instructors are often graduates of the 3 to 4-year programs. One instructor stated that approximately 70 percent of his knowledge and

experience with a specific subject deepens by means of exchanges with the professor heading that department, 20 percent is acquired from daily readings, and the remaining 10 percent comes from internal meetings with other instructors.

The instructional design includes a focus on competencies while developing students' theoretical knowledge. At Zamorano, students learn in four main environments:

- In 2- to 3-week modules with a small group of students and one instructor.
- In academic classrooms.
- In laboratories.
- In the field.

A key feature of the learning process is the emphasis placed on requiring students to experience the consequences of their actions. At the beginning of each module, students discuss the goals of the module with the instructor who helps them understand the deliverables associated with each module. A similar review happens at the end of each module. Students must demonstrate that they have mastered the skills required in each module. Because all modules involve hands-on direct work, students experience immediate feedback as they review their progress daily and weekly with their instructors.

Open Access

Zamorano covers the entire economic and social strata by means of a strong scholarship program. Students come to Zamorano mainly from 19 Latin American and Caribbean countries, including Cuba, Haiti, and Jamaica. A few graduates have come from Austria, Israel, Italy, Spain, and the United States. Zamorano has a strict nondiscrimination policy. All ethnic groups existing in the countries it serves are or have been enrolled. Approximately 30 percent of the students are entirely supported by the school's endowment, another 30 percent have partial support (often from their home countries), and 40 percent pay full tuition. Zamorano graduates will go into mid- to top-level positions in agriculture and often play an important role in transferring technical expertise. Zamorano reaches out to the rural poor through various microenterprise development projects carried out by faculty and students. These are separately financed by donor grants. Zamorano advertises and administers entrance exams in each country to make sure the school is accessible to the many regions and ethnic groups found in Latin America.

Zamorano appears to go out of its way to recruit and enroll female students. Twenty-five percent of its student body is female; this is noteworthy in that leadership in the agricultural industry has largely been the province of males. Once in Zamorano, female students appear to do quite well. Often, according to interviews, they feel extra challenged to demonstrate that they also can do the required work and go out of their way to prove themselves. Ten percent of the instructors at Zamorano are females, and many of the rural microenterprise projects are aimed at female students.

Portability of Skills

Prepared by the Center for Workforce Development at Education Development Center, Inc., 1996.

Leadership, academic and hands-on skills tend to be highly portable. Zamorano places tremendous emphasis on training youth to be leaders in their careers and professional endeavors. Thus students gain practice, experience, and the opportunities to demonstrate skills in learning how to learn, presentation, teamwork, discipline, planning, prioritizing, leading people, and thinking independently. Skills acquired at Zamorano are portable across many different tropical countries and sectors such as banking or enterprise management or manufacturing. Graduates can also be found in diplomatic or commercial careers. Alumni report that the discipline they acquired through their Zamorano experience has been invaluable in any profession.

Lifelong learning habits are developed at Zamorano. Graduates claim they never lose the habit of learning acquired at Zamorano throughout their lifetime. The Zamorano experience is purposely designed to “create habits of mind and heart.” Graduates point out that they continue learning throughout their lives because of the habits they acquired while at Zamorano, such as self-discipline, and being responsible for one’s learning.

By design the school has few, if any links to the public education systems of Honduras or other Latin American states. Zamorano leaders believe they must operate independently from the politics of governments and countries from which the school draws its students. Other than the links the school has with many U.S. 2- and 4-year colleges, as well as post-secondary institutions throughout Latin America, there is no formal link with the public education system.

Continuous Improvement

Faculty and staff evaluate themselves annually. Zamorano uses exams, direct observation, quizzes, and faculty meetings to check indicators of student performance. Zamorano faculty describe themselves as “extremely critical.” Each has an “instructor’s portfolio.” This collection is considered the foundation document for the instructor and is used for annual evaluations when faculty assess their own performance concerning goals achieved, things done or not done, and missing resources. Two evaluators, one inside and one from outside the school, evaluate each faculty member. The individual being evaluated teams with his evaluators to set goals for the next year. Next year’s budget and salary increase are based in part upon the evaluation. Students can comment on instructors who they feel are not satisfactory.

External reviews are performed every 4 to 5 years. External reviews are done every 4 to 5 years, using a panel of experts who have some knowledge of the school. Acting as friendly critics, these experts form teams to review each main school division, including financial, outreach, management, and education. Zamorano is often studied by other groups as well. Moreover, the school hosts a variety of forums and workshops with foreign governments.

Public-Private Partnerships

Zamorano creates value for employers who support the school in a variety of ways.

According to school officials, employers think that Zamorano provides them with a valuable source of professionally trained people, technology transfer and information. In general their links with the school are based on their needs. For example, the Association of Livestock Producers and the Association of Export Businesses work closely with Zamorano faculty and administration. Employers often use the school as a source of in-service training for their current workers, for finding promising employees, and often involve several fourth-year students in direct work experiences. Employers generally receive lab and consulting services; they often help fund the education of students, especially those in the final year. Some trustees are also employers.

Stakeholders are directly involved with the school. Zamorano's primary stakeholders are the employers who employ graduates, donors, and the universities to which graduates transfer upon completing their studies at Zamorano. The school's faculty and administration appear to have close links to each of those stakeholder groups and works with them to develop programs, check progress, and further develop curriculum. Zamorano also works collaboratively with numerous governments, nongovernment organizations, and enterprises.

The public sector plays a minor role, except for channeling funding. The role of the public sector is limited for a variety of reasons, including political changes in Honduras and surrounding countries. Zamorano involves the public sector only through the Ministry of Agriculture or Education; either entity may approve the use of internal funds for students from their respective countries. InterAmerican Development Bank (IDB) funding must also be channeled through the Ministry of Education.

Sustainable Financing

Zamorano is financed from a variety of different sources. The sources include employers who provide scholarships, professional associations, national foundations, country funds, private foundations, U.S. funds (Schools And Hospitals Abroad), and from the 40 percent of students who pay their tuition. Approximately US\$16,000 a year is required to educate each student. Zamorano's expenses break down as follows: 27 percent of the budget is allocated to education, 16 percent to outreach, 7 percent to student services, 9 percent to administration, 12 percent to general operations, and 30 percent to production and marketing.

The school has become increasingly flexible with regard to financing. In earlier years, Zamorano relied heavily on the U.S. government. During the 1980s, tuition accounted for only 12 percent of the total income. Now it makes up 60 percent. At present, most of the additional funding comes from local foundations and graduates through alumni contributions. Zamorano is targeting more employers who are contributing more generously than in the past. Additional new sources of funding and partnership come from the IDB, World Bank, CAD Bank, and area foundations. Zamorano has an office in Washington, D.C., and receives additional funds from the European Union, the German Training Foundation (GZT), and the Government of France. The Swiss government has supported Zamorano during the last 18 to 20 years.

Skillful use of leverage has helped the school attract more funding. According to staff, every dollar that comes into the school produces an additional \$10. For example, Zamorano has submitted a proposal to a leading foundation to develop a community-based capacity building program that includes all the community's stakeholders (teachers, mayors, producers, citizens, etc.). This program would likely spin off a number of related projects and bring in additional revenues.

Students help generate revenues. During 1994, students generated 30 percent of Zamorano's revenues through learning-by-doing and from products sold, products consumed within the school, and outside services. Quality- and cost-control measures conducted by students are optimizing revenues generated for self-financing. One of the largest portions of the budget is production, because most of what students and faculty consume is produced at Zamorano. Outreach income is provided by means of training, extension, research, consulting, and publishing activities which are either self-financing or financed through donors. A small portion of Zamorano's income is derived from unrestricted donations.

Cost-effectiveness is determined by indicators of success. Interviews with staff suggest that they measure cost-effectiveness by:

1. The upward mobility of students. For example, one youth, who worked as a carpentry assistant before entering Zamorano, is now an entomologist.
2. Graduation rates. Between 60 and 70 percent of students completed the 3-year program in the past. In recent years, this number has risen to between 75 and 80 percent. The fourth- year completion rate is 90 percent.
3. Competition for students from recognized U.S. universities. A number of grads proceed to universities in the United States, including Cornell, Purdue, and Florida State.
4. Jobs. Virtually all Zamorano grads find jobs despite the depressed market in agriculture. Many graduates get more than one job offer.

Replicability

It is surprising that Zamorano has never been replicated as the school appears to be an ideal model for replication, provided the resources can be marshaled. The concept of total immersion in an industry through learning-by-doing would be useful for imparting expertise in any industrial sector (hospitality, electronics, health care, financial services, construction) in which a region or country wants to develop a competitive advantage. Although it is difficult to find donors on the scale of the United Fruit Company, or land prices as low as they were in the 1940s, a school along the lines of the Zamorano model would likely demonstrate that it could be highly effective in producing outstanding graduates who emerge as leaders in their fields. Although the requirements for initial capital and endowment funds would be considerable, many countries, even those under economic constraints, might create public-private funding to develop a core capacity of leaders in a promising industry. Unlike Zamorano, which does not require graduates to return to their home country, a country might insist that graduates return for a period of time in exchange for receiving educational support.

Economic and Social Impact

Leadership and improved agricultural practices promote economic growth. Most developing countries need to improve their agricultural practices and output to feed their population and boost their export balances. As highly trained Zamorano graduates fill the leadership ranks in Latin American and Caribbean countries, their influence should make a difference to the economies of the countries in which they are working.

Preparing a new generation of men and women leaders in Latin America is part of the school's mission. Conversations with students and faculty indicate that Zamorano directly promotes the status of women and girls because in Latin American and Caribbean countries these members of society generally expect to work in domestic or often low-level service occupations. As women graduate from Zamorano and take on leadership roles in the region, they can become role models that challenge traditional stereotypes.

Participating in Zamorano raises the standard of living of Zamorano graduates. Zamorano graduates can be found in leadership positions throughout the Latin American region and in other parts of the world. Many have come from extremely poor backgrounds. Interviews with students indicate that many would still be doing menial jobs or trying to survive in the informal sector had it not been for Zamorano.

Students and microenterprises working with Zamorano learn how to incorporate practices that promote a sustainable environment. Zamorano faculty place a very high degree of emphasis on good and sustainable environmental practices, as well as on using appropriate technology to protect and improve the environment.

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REGION: The Americas**Republic of Peru
SENATI**

Case Overview

Servicio Nacional de Adiestramiento en Trabajo Industrial (SENATI) is a national training system for any Peruvian youth who is interested in a manufacturing career. SENATI serves approximately 80,000 youth annually and has trained more than 1 million youth since its inception in 1961. Although a small number of youth are younger than age 18 and some adults are older than 24, at least 30 percent of SENATI's students are between the ages of 18 and 23. Most of the students are economically disadvantaged. Because the primary thrust of SENATI is in building manufacturing skills, which are traditionally associated with men in Peru, women compose only 10 percent of the current student body. However, as SENATI expands its training to include various service occupations, such as pattern making, baking, and tailoring, the number of women participants is increasing.

SENATI was established by the National Association of Industries in Lima to build capacity in the manufacturing sector by promoting the development of skilled labor. A law was passed to frame the relationship between SENATI, the government, and Peru's employers, and a payroll tax was instituted to provide training funds. Thirty-five years and several administrations later, the tax and training system is still in place, providing training for youth in all of Peru's 37 provinces. Peru's checkered political history has left its mark on the national training system, as well as the country's physical infrastructure. With few exceptions, equipment and technology no longer match those found in advanced industrial countries. Despite this, as well as recent administration pressure to eliminate the training tax, SENATI's trainers and employers appear committed to keep the system operational.

SENATI's primary objectives are:

- build capacity in the nation's manufacturing sector by providing youth with the skills required to enter various manufacturing occupations
- support the development of new businesses by developing a skilled base of workers who can succeed as entrepreneurs
- link employers who have the workplaces for learning practical skills with regional education and training centers, where youth learn theoretical skills and basic workplace skills

Several features make SENATI a unique program. Although it closely resembles Germany's dual training system about 35 years ago, Peruvian employers have succeeded in adapting the dual system to their local needs of today. That SENATI survived despite severe political upheavals is a testament to the commitment of Peruvian employers, who continue to invest in

training taxes and apprenticeship wages at a time when their economy is just beginning to rebound from years of being virtually closed to the international economy. Employers' commitment can also be seen in the way employers invest in the careful maintenance of outdated machinery—for the sole purpose of using it to help train youth who otherwise might not have any opportunity to work directly with such tools.

SENATI has replicated itself throughout Peru's 37 provinces which cover vastly different climatic and economic regions. Moreover, many former SENATI graduates have founded successful enterprises, and now participate on the organization's board or committees, which in turn keep the system functioning. The quality of the training facilities is notable. Classrooms are surrounded by workshops that link education and training. Despite being somewhat outdated, workshops are staffed, and equipment and tools appear extremely well maintained. Trainers are both teachers and technicians, and they attain dual certifications before they can train youth in SENATI workshops or in the workplaces of Peru.

Since 1961, SENATI has trained more than 1 million youth aged 14 to 24. Fourteen alumni serve on the National Council of Employers. The training tax has survived, thanks to the insistence of employers, despite pressure from the current administration to eliminate it.

Why This Case Was Selected

SENATI was selected for its:

- institutionalization, standardization, and improvement of education and training in manufacturing throughout Peru
- depth, broad coverage, and quality of basic skills training in the manufacturing sector
- extensive replication throughout all of Peru's 37 provinces featuring an enormous variety of climates and geography
- success in adapting the dual system to a different culture and different needs
- employer commitment
- ability to survive over 35 years despite considerable political and economic pressures
- ability to build and maintain an education and training system alongside the formal education system

Background

Peru's economic isolation over the past two decades has left its mark on the country's economy as well as on SENATI. Many Peruvian manufacturers appear to work with outdated technologies. Much work needs to be done before the physical and information infrastructure can support the kinds of manufacturing processes found in highly industrialized countries. Eight million of the country's 24 million inhabitants are in a labor force that can be characterized by extensive underemployment and a 15 percent unemployment rate. Since the election of Alberto Fujimori in 1990, the Peruvian economy has become increasingly market-oriented, with major privatization completed in 1994 in the mining and telecommunications industries. In the 1980s the economy suffered from hyper-inflation,

declining per capita output, and mounting external debt. Peru was shut off from the International Monetary Fund (IMF) and World Bank support in the mid-1980s because of its huge debt arrears. An austerity program implemented shortly after the Fujimori government took office contributed to a third consecutive yearly contraction of economic activity. This slide eventually came to a halt. In 1991 output rose 2.4 percent and Lima also obtained a financial rescue package from multilateral lenders. The government, working with its lenders, ended its arrears in 1993. The economy grew at 6 percent in 1993 and 8.6 percent in 1994. Still, many Peruvians live under extremely poor conditions. Of the total population, approximately 92 percent of males can read and write, compared with 74 percent of females.¹ For the 58 percent of the population under the age of 25, SENATI is one of the most viable opportunities to acquire marketable skills.

Leadership and Accountability

SENATI's leadership is accountable to employers. Working with employers, SENATI leaders have succeeded in:

- Passing a training law which now extends through 1997.
- Adapting the dual system of training in which both school and skills development are housed in 37 specific training centers, one located in each province. To accomplish this strategy, foreign donors were invited to participate and SENATI has received extensive support from Germany and Switzerland.
- Developing a specific training program for trainers, the *Meisterschule*, imitating the dual system model.
- Maintaining the highest possible training quality by continually evaluating results and performance of trainers, students, and learning at workplaces.

Demand-Driven Design

SENATI creates value for employers and youth.

1. After a first-year, training-and-education period in the training center, SENATI youth perform some productive work at an enterprise 4 days a week and continue to be educated at the center 1 day a week. Employers are not required to hire SENATI graduates upon completion of the dual system program.
2. Youth learn by doing, gaining the theoretical knowledge and applied skills needed for entering 52 different manufacturing occupations
3. Quality control permeates the system, as the quality of training at workplaces is monitored by SENATI staff who visit periodically. Furthermore, each training workplace must have a recognized *meister* (German for master worker who is also qualified to teach youth) or certified trainer on site to supervise youth. When SENATI staff come to check, they typically meet with the student and the meister to discuss the student's progress.
4. Efficiency of training keeps down costs.

¹ CIA World FactBook, World Wide Web, 1995.

5. Employers drive and monitor the system by paying for it, participating in a variety of ways, and monitoring quality.
6. Curricula are in place and used for each step of the education and training process.
7. Trainers and faculty are carefully selected and participate in quality reviews.

Employers drive the system, and some are linked to international markets. SENATI employers work closely with SENATI staff to develop curriculum and spell out requirements for training youth for entry-level work in somewhat skilled positions in the manufacturing sectors. As Peru begins to modernize its industries, training places will start to provide the kinds of tools and equipment that will help Peru compete in the global marketplace. Many of the employers who are members of the Employers' Board are involved in international trade either through being part of a multinational or through supplying a foreign firm. However, many employers are trading only on the Latin American market. SENATI is considering the development of proposals to other Latin American countries to help finance the training of youth from abroad. Several employers expressed concern about the need for ISO 9000 certification. For instance, in the remote jungle area of San Martin, already two employers have been ISO certified. Certification is becoming increasingly important for international competitiveness; it affects the content of training.

SENATI researches and identifies labor market needs and links these to occupational profiles. SENATI's national office annually publishes a report that lists the programs and specializations at the national level. Regional offices also distribute documents about labor market needs to the public. Program designers learn about labor market needs by doing needs assessments for skills development with employers in their regions and at the national level. Each assessment is linked to an occupational profile. Program content is designed based on each occupational profile. This is validated by representatives from the different enterprises in Peru.

Developing national skill standards is challenging in the absence of state-of-the art technology. SENATI and Peruvian employers are in the process of defining skill standards for different occupational profiles. Previous attempts at normalizing occupations throughout Latin and Central America have failed, therefore Peru is embarking on its own development of skill standards. The largest gap—according to employers, students, trainers, and teachers, and SENATI management—is the lack of state-of-the-art technology. Employers appear to be keenly aware of the need to develop the workforces' capacity in the newer technologies because this directly affects their ability to compete in the market. Consider the lack of telecommunications infrastructure: Automobile dealerships cannot connect to the maintenance/diagnostic tools available in the original equipment countries and thus cannot train workers adequately.

Trainers are masterworkers who have been trained to teach. SENATI's trainers are selected from industry. They hold either university degrees or technical degrees with a minimum of 3 years' experience. These individuals are often recruited from among SENATI graduates. Of the 30 trainers observed, 60 percent were SENATI graduates. Trainers have to take two technical exams and a theoretical exam related to their specialization. Then they have to take

a practical test. They also must complete a pedagogical course followed by a personal interview before they can be selected.

Modular curriculum focuses on competencies and skills students must demonstrate at the workplace. Modules are used in each training workshop. Students must complete the modules which include task lists and they must demonstrate their skills at the workplace.

Open Access

SENATI's target population includes youth and unemployed adults. SENATI reaches both urban and rural poor young people between the ages of 18 and 24. SENATI also trains unemployed individuals, including those who have recently been laid off. The announcements for applications are publicized in all the major newspapers in every city in Peru. The objective is for the population as a whole, including the employers and workers, to gain the information about the different workforce development programs available. Youth who decide to apply must bring a letter of support from an enterprise. They must also bring proof of completion of primary and secondary education, according to the requirements of the training occupations. Individuals who are currently working must show proof of their employers' support for the training. Entrepreneurs also have access to SENATI, however, they are required to pay for their training. SENATI also works to develop microentrepreneurs.

Women are underrepresented. Because of SENATI's manufacturing orientation, only 10 percent of the current student body are women. However, as SENATI expands its training activities to include various service occupations desired by women and girls, the number of women in the system increases. According to SENATI's director, the application requirements make no distinction between women and men.

Portability of Skills

SENATI provides youth with portable skills among firms and regions, however the system has not fully integrated the human interaction and related skills required in more sophisticated workplaces. The basic skills acquired in SENATI can be applied anywhere. Because the occupational profiles are nationally validated, skills are generally portable throughout Peru. Youth who are in the Technical Operators Program receive additional orientation on communication skills, human behavior, as well as team skills through physical education and cultural activities. In one other technician career—technical supervisor—youth receive training in planning and supervision.

Although employers express the need for lifelong learning, it is not yet a part of SENATI. The absence of a system of lifelong learning is perhaps the weakest area of SENATI. During a focus group meeting with 16 alumni of SENATI, employers and trainers stated that they have no way to update and improve their knowledge. They felt that continued learning was essential for competing in the world market. Total Quality Management (TQM), Re-engineering, and ISO 9000 were cited frequently during this discussion. Although two of the

alumni had already been successful in getting their enterprises certified for ISO 9000 standards, they were concerned about the degree of difficulty they experienced in upgrading their knowledge efficiently.

There is virtually no connection to Peru's public education system. Due to various structural problems with the public education system,² SENATI does not connect to the public education system except when SENATI contracts with the Ministry of Education to train vocational teachers.

Continuous Improvement

Quarterly and annual evaluations help drive improvements in practice. Students are periodically measured to check their progress. Quarterly and annual evaluations are conducted in all the 37 centers, using instruments provided by the national office. The indicators include the number of apprenticeships participating in the different programs, the number of participants, and the number of instructional hours. The results are compared with the numbers approved on the annual strategic objectives plan and the operational budget. Qualitative assessments are done using enterprise managers' comments and opinions about the work of the apprentices and SENATI's services to them. SENATI also conducts a monthly analysis, comparing the number of participants with the total number of hours of instruction available. These numbers are sent to the statistical unit of the national office for analysis and processing. External evaluation occurs indirectly through the alumni who often hire apprentices and through the 37 regional employer councils as well as the national council.

Public-Private Partnerships

The public sector's role is weak, as employers and other stakeholders invest in SENATI. At present (1996), employers pay a payroll tax of 0.75 percent. This has declined from the original 1.5 percent and is expected to decrease to 0.5 percent by 1999. In addition, each employer pays a monthly stipend of approximately US\$53 to each trainee. The Peruvian government participates indirectly through collecting the payroll taxes and distributing the proceeds to SENATI. Furthermore, the Ministry of Education pays SENATI US\$30 for each student in the system.

Sustainable Financing

SENATI is financed by employers and by the services SENATI can provide to other client groups. In addition to financing through payroll taxes, SENATI is also financed through foreign aid from Belgium, Germany, and Switzerland. The manufacturing industry contributes 80 percent of the total cost of the SENATI system, and registration fees for small business and microenterprise contribute 20 percent. To generate additional revenues for the system, trainers are being motivated to develop courses that can generate revenues outside

² author's interviews with SENATI staff, March 1996.

the dual system. These courses are aimed at various enterprises. SENATI also receives funds from the Ministry of Education for teacher training. However, during the time that Peru's economy was closed, international assistance stopped, leaving SENATI with no apparent means of securing financing for new technology and equipment. Before Peru's difficulties, foreign donors contributed virtually all the technology and equipment used in SENATI's training centers. At present, SENATI has difficulty finding the necessary resources to upgrade its equipment and technologies.

Each stakeholder invests something in the system. Approximately US\$1,200 a year is required to educate and train each student. Eighty percent of this comes from the enterprise and 20 percent comes from the Ministry of Education. Students contribute in the form of lower training wages. Students also invest their time and efforts with no guarantee that they'll be hired upon completing training with a particular employer. Employers contribute through the payroll tax and the presence of a certified trainer on the shop floor. This trainer, is however, a source of productive labor to the employer. The Ministry of Education contributes US\$30 for each student.

Replicability

SENATI replicates, to a degree, the dual system of Germany which has been modeled in a number of countries around the world. SENATI is linked to and replicates SENAI in Brazil and SENA in Colombia. In all three cases, the results are considered highly positive. SENATI is also training instructors from Bolivia, Ecuador, and Paraguay.

Economic and Social Impact

SENATI promotes economic growth. SENATI creates an opportunity and pathway for disadvantaged youth throughout Peru to earn their way out of poverty by means of acquiring skills that lead to productive work. Youth benefit, as do the employers, the various regions, and the nation.

Increasing numbers of women and girls participate in SENATI. With the growth of the service sector in Peru, the number of girls and women participating in SENATI continues to rise. As women and girls participate in the economy through well-paid, productive work, their status should improve.

Most SENATI graduates establish their own business. Nine out of 12 graduates establish their own businesses. These former students appear to believe that the training provided by SENATI provided them with the skills they need to succeed.

Despite some promising examples, lack of up-to-date technology hampers progress, economic growth, and better environmental practices. Most tools and equipment used in SENATI are more than 20 years old. Although CID and CAD/CAM are available, there are only a few such tools. The outdated machinery poses environmental and other problems for SENATI and the country and makes transfer of technology difficult. However, one example

reveals the transfer of technology that occurred by means of an agreement between SENATI and the Ministry of Education; SENATI transferred education technology (both methodology and workshop practice) to more than 1,000 teachers at the Higher Technical Institutes and National Vocational Education Centers. Technology transfer was also observed in the case of a manufacturer of yarn who was training both apprentices and masters on the newest machines imported from Italy. Using these machines as models, trainers and students were in the process of upgrading less-advanced machines obtained from Israel. Another example of technology transfer is the Internet upgrading and training, with which one of the manufacturers is assisting SENATI. The goal is to connect all the SENATI centers and the majority of the manufacturers to the Internet.

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REGION: The Americas

**Miami, Florida
Miami-Dade Community College**

Case Overview¹

Miami-Dade Community College (MDCC), founded in 1960, is an institution of higher education which offers more than 145 Associate in Arts, Associate in Science, and certificate programs at five major campuses and at numerous off-campus centers throughout Dade County. A uniquely American institution, the community college has experienced tremendous growth in the United States since World War II. Florida's Miami-Dade Community College is widely recognized in the United States for the way in which it "provides accessible, affordable, high quality education by keeping the learner's needs at the center of decision making and working in partnership with its dynamic multicultural community."²

MDCC's objectives are numerous. It seeks to:

- Prepare students to earn a bachelor's degree.
- Enter the workforce.
- Enter a 2-year degree program.
- Complete a 2-year degree program.
- Reflect the diversity of the community.
- Provide opportunities for life-long learning.

Additionally, MDCC builds partnerships with business and industry to promote local economic development. MDCC is considered outstanding in terms of its linkages with employers and responsiveness to labor market trends.³

In the fall of 1993, 52,814 students were enrolled in MDCC. Students come to MDCC from all over the world. Sixty-one percent of the student population comes from the United States, of which 99 percent are Florida residents; the rest of the student population comes from Latin America and the Caribbean, Europe, Africa, Near East, Far East, Canada, and Oceania.⁴

¹ Unless otherwise noted, information for this case was drawn from *Miami-Dade Community College Fact Book 1994-1995: Miami-Dade Community College*, Institutional Research, 1993-1994, and *Miami-Dade Community College Catalog 1995-1996*, Vol. XXXI, first printing. Miami-Dade Community College: Florida.

² Mission Statement, Miami Dade Community College.

³ The Center for Educational Leadership's Youth Policy Forum under the direction of Sam Halpern recently brought together a group of leading U.S. educators and policymakers to study and visit Miami Dade Community College.

⁴ *Miami-Dade Community College Fact Book 1994-1995*. Miami-Dade Community College, Institutional Research, 1993-1994. p. 16.

MDCC's student body is ethnically and culturally diverse: 57 percent Hispanic, 21 percent black non-Hispanic, 19.3 percent white non-Hispanic, and 2.1 percent other. Slightly more than half the students report English as their native language. More than 90 languages are represented at MDCC. Fifty-eight percent of the students are women and 42 percent are men, reflecting the national trend in community college enrollment. The average age of students is 26, and 23 percent are over age 30. Women over the age of 30 compose 15 percent of the student body. Approximately 800 students report having a disability of some sort, including learning disabilities and impairments in health, hearing, physical, visual, and speech.⁵

The college uses a number of measures to evaluate its success. These include:

School population reflects the community. The college succeeds in attracting a diverse student body. Overall, MDCC drew more high school graduates as a proportion of the graduating class than the statewide average (47 percent versus 33 percent). In addition, 64 percent of all Hispanic high school graduates enrolled at MDCC in 1992-1993.

Serve the underprepared student. MDCC offers college preparatory classes to its students, two-thirds of which are academically underprepared for college when they enroll. The school offers tutoring and labs in a number of subjects to make sure that every possible avenue of assistance is available.

Help students to meet their goals. Students at Miami-Dade expect to graduate with an associate degree, remain enrolled with a grade point average (GPA) of 2.0 or better (in good standing), or leave with a GPA of 2.0 or better. Four years after enrolling, 73 percent of the students had either graduated or remained enrolled, while 88 percent had either graduated, were enrolled in good standing, or left in good standing.⁶

Prepare students to enter the workforce. Traditionally, students seeking to enter the workforce upon completion of their community college education choose to earn an associate in science (A.S.) degree. Seventy-three percent of Miami-Dade's A.S. graduates in 1991-1992 found jobs in professions related to their degrees, which is similar to the rate of all Florida community colleges (74 percent). Only 18 percent of the A.S. graduates immediately continued their education.⁷ For students who enter the workforce and take state licensure exams, MDCC exceeds state passing rates in paramedic, emergency medical technician, and fire fighter. MDCC's pass rates are similar to state pass rates for Dental Hygienist. College pass rates fall below those for the state in exams for physical therapist assistant, registered nurse and respiratory care technician.

⁵ Ibid., p. 17-20.

⁶ Ibid., p. 32.

⁷ Ibid., p. 35. The remaining 9 percent of A.S. graduates are not accounted for in the data presented.

Prepare students to earn a baccalaureate. Students who earn an associate in arts (A.A.) degree at a community college tend to pursue a baccalaureate degree upon graduating. In 1991-1992, 84 percent of A.A. graduates continued in the Florida public education system whereas 16 percent worked in the field (and possibly also enrolled in private institutions).⁸

The college has achieved national recognition in the last 10 years. In 1993, it was the first recipient of the annual Theodore M. Hesburgh Award for Faculty Development to Enhance Undergraduate Teaching, based on the college's Teaching/Learning Project. The other institutions which received certificates of excellence were all 4-year colleges. In 1984, the school was the first choice by a panel of authorities who voted for the top community colleges. MDCC became the focus of the resulting book *Access and Excellence: The Open-Door College*.

⁸ Ibid., The data do not include information on how many of the students who continued their education in the Florida education system earned bachelor's degrees.

Why This Case Was Selected

MDCC was selected because it is exemplary in:

- Building partnerships with the local business community.
- Contributing to economic development by training the workforce for the region's needs.
- Serving a variety of needs for a diverse population.
- Fostering lifelong learning in the community.
- Encouraging professional development of faculty and staff.

Background

The United States has the most powerful, diverse, and technologically advanced economy in the world, with a per capita gross domestic product (GDP) of \$6.7 trillion (1994)⁹ one of the largest among major industrial nations. The economy is market-oriented with most decisions made by private individuals and business firms and with government purchases of goods and services made predominantly in the marketplace. In 1989, the economy enjoyed its seventh successive year of substantial growth, the longest in peacetime history. The year 1994 witnessed a solid 4 percent gain in real output, a low inflation rate of 2.6 percent, and a drop in unemployment below 6 percent. The capture of both chambers of Congress by the Republicans in the elections of November 1994 could mean substantial changes are likely in future U.S. economic policy, including changes in the ways the United States will handle its major economic problems in 1995-1996. These problems include inadequate investment in economic infrastructure, rapidly rising medical costs of an aging population, sizable budget and trade deficits,¹⁰ and a mediocre secondary education for the approximately 50 percent of youth who do not go on to college.¹¹ These youth, who often drop out, tend to mill about in the labor market for a number of years until they decide to go back to school and get the education needed to improve their lives. At that time, they typically turn to community colleges, at which open enrollment policies and lower cost make it possible for them to continue their education.

When the GI bill became law in 1944, the doors of higher education suddenly opened for an entirely new population. Previously, higher education was for the wealthy, not for sons of farmers and factory workers. The law provided free college education, including tuition reimbursement, books, and a monthly allowance, to all veterans who had served 90 days or more in World War II. Some veterans chose to attend 4-year colleges, but many more were seeking career training and were not willing to relocate to attend a school. This resulted in a boon for local junior colleges, which, by the fall of 1946, were filled to capacity. To absorb the demand for education, new colleges were established, others expanded, etc. Within 3

⁹ The CIA World FactBook, World Wide Web, 1995.

¹⁰ Ibid.

¹¹ National Center for Education and the Economy. *America's Choice, High Skills or Low Wages?* Rochester, N.Y., 1995.

years (1944-1947), college enrollment jumped from 251,000 to 500,000. By 1947, three out of four students were enrolled in public institutions.¹²

The 2-year college, already given a jump-start by the returning veterans and the GI bill, was pushed further into the limelight when the Truman Commission issued a report on higher education, which suggested the name change from “junior” college to “community” college. In 1947, the President’s Commission on Higher Education, an outgrowth of the Truman Commission, launched a national effort to create 2-year colleges. These institutions were envisioned to be closely articulated with high schools, offer education through grade 14, and receive state and federal funding while remaining under local control. Even more important, a new concept was added to the mission of community colleges: to offer terminal, semiprofessional programs and to serve the community as a whole, especially the victims of poverty and racism, those who had previously faced barriers to attaining an education suited to their interests. This democratization of higher education was driven largely by students, those who had fought in the war and now had the gift of a free education. Their numbers simply couldn’t be accommodated by the schools that existed upon their return to the states.¹³

In 1952, Congress adjusted the GI bill to extend education benefits to Korean War veterans. This wave of veterans had great impact on enrollments. Within 3 years, student enrollment increased by 299,000 nationwide. As public college enrollments grew, private college enrollments declined. In the 1950s, the community college concept also became global, as 2-year schools were established in Canada and other regions.¹⁴

The third military conflict that affected colleges was the Vietnam War. A new enrollment record in the fall of 1963 had 927,000 students listed nationwide, and by the fall of 1965 enrollment topped 1.3 million. This time, enrollment figures were boosted by students seeking to avoid the draft as well as those wishing to pursue education. By the fall of 1970, for every private college that had closed, the United States had built one community or junior college each week for a decade.¹⁵

Another significant shift in the growth and development of community colleges occurred in the 1970s, when colleges began to aggressively add on programs that were for specific occupations. This was coupled with a growing mission of continuing education and lifelong learning, offering a myriad of programs and courses to serve the community at large, whether it be to upgrade skills or for general enrichment. Both of these shifts reflected a new focus on serving a different “customer” than in the prior years. Earlier, community colleges viewed themselves as preparing students for further education, and measured their success by how well they did this. In the ‘70s, as more and more students enrolled in occupational programs, the measure of success became how well the school prepared the student for the workforce.

¹² *America’s Community College: The First Century*. Alan A. Witt, James Wattenberger, James F. Gollattscheck, and Joseph E. Suppiger. Washington, DC: American Association of Community Colleges. 1994.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

The shift resulted in employers perceiving community colleges in a new way and helped pave the road for developing public-private partnerships between the schools and employers.¹⁶

Community colleges become increasingly more important not only to employers, but also to the adult community. For many, the community college was often the only choice for learning the skills required to enter the technologically based world of work,¹⁷ partly because of its cost, flexibility, and support systems for the adult learner.

¹⁶ Ibid.

¹⁷ Ibid.

Leadership and Accountability

MDCC is held accountable for its performance on a variety of goals. MDCC is accountable to Florida's Board of Public Instruction for the following goals: to create effective, student-centered learning opportunities for college and university transfer, career preparation, continuing education and personal enrichment; to respond to community needs for an enlightened citizenry and an educated workforce; to provide accessible educational opportunities which foster knowledge and skill acquisition, critical thinking, civic responsibility, and cross-cultural understanding; to reflect the diversity of the larger community; to cultivate a teaching and learning environment which values individual contribution and encourages excellence; to promote economic, social, and cultural partnerships with the community; and to ensure systematic decision making which supports the college mission.

Create an open, supportive learning environment. The college creates an environment conducive to teaching and learning, encourages the free interchange of ideas and beliefs; provides advising and counseling to support the needs of students; expects everyone to participate actively in the learning process; and emphasizes communication skills.

Seven values govern the College's education philosophy.

- **Dynamic and responsive:** The college encourages and supports creativity and innovation; responds to the changing educational needs of the community; anticipates the future needs of the community; and supports faculty and staff development.
- **Access and quality:** The college provides supportive services to assist students in meeting their educational goals; offers students prescriptive learning opportunities; expects students to meet defined standards; provides a variety of scholarships and financial aid programs; and structures the admissions process to encourage enrollment.
- **Diversity:** The college respects individuals from a variety of cultural backgrounds; provides role models; respects and responds to students' different learning styles; and offers interdisciplinary educational programs.
- **Individuality:** The college emphasizes honesty and integrity; rewards achievement; publishes explicit performance expectations of students; and encourages a positive attitude toward teaching and learning.
- **Systemic decision making:** The college collects accurate and current data; assesses the community's learning needs; measures students' abilities upon entry to the institution; provides feedback to assist in meeting standards; uses the expertise of the faculty to improve the teaching/learning process; and evaluates students' progress throughout their careers at the college.

- Community partnerships: The college provides accessible campus and outreach centers; cooperates with other educational systems; supports activities that enrich the community; plans educational programs with business and industry to promote the local economic development of the community; and increases the community's awareness of college programs and activities.
- Accountability: For programs designed to prepare students for a specialized profession or occupation, the institution must demonstrate that an effective relationship exists between curricular content and current practices in the field of specialization.

Demand-Driven Design

MDCC is responsive to the community's workforce needs. As part of its effort to promote economic development in the Greater Miami area, MDCC conducts periodic in-depth assessments of the community's needs. This assessment includes gathering data on anticipated openings in occupational fields as projected over 3 years, 5 years, and on openings for internships in various fields. The school uses these data to determine enrollment figures in its various programs, to ensure that the school does not flood the market with more qualified candidates than can be absorbed and that students will be able to find internships during their courses of study. The employers are directly tied to the school's curriculum in this way, and they also advise on current trends in the workplace, skill needs, etc.

The college offers more than 500 vocations credit certificate programs, which are geared for immediate job entry and valued in vocational credits rather than college credits. Vocational certificates, unlike associate degrees, cannot be applied toward college credit. The programs and courses are extremely responsive to the needs of both the community and the individual students.¹⁸ For example, some certificate programs in health care have been eliminated because employers are using fewer employees to perform tasks once done by a range of job titles. As health care is turning to cross-training as a means to cut costs, MDCC has eliminated some programs, knowing that certain job titles are now less marketable than they once were. Many of the programs at the Medical Center campus were developed in response to the huge numbers of laid-off Pan Am and Eastern Airlines employees, all of whom required retraining when those companies closed. Many certificate programs, rather than associate programs, were designed to meet the employees' and the market's needs.

An international student population broadens MDCC's linkages. MDCC, with its large population of foreign students, is indirectly tied into the international market, as it is preparing students for the workforce and further education. Many of the students return to their native countries. Furthermore, MDCC's bilingual students have an advantage in the increasingly globalized economy.¹⁹

¹⁸ *Miami-Dade Community College Catalog 1995-1996*. Vol. XXXI, first printing. Miami-Dade Community College: Florida. p. 196.

¹⁹ Immigrants in the United States. American Association of Community Colleges, World Wide Web, November 1995.

Instructors are highly skilled and encouraged to continue their professional development. The faculty who have been recruited to the college are well qualified. Approximately 93 percent have earned advanced degrees and 23 percent have doctorates. The college encourages faculty to obtain doctoral degrees and provides some tuition reimbursement to those pursuing further education.

MDCC supports professional development in number of ways, including: covering tuition costs for faculty (new and continuing) in a college-specified graduate course; conducting workshops ranging from improving computer literacy and application to enhancing teaching and learning through the Teaching/Learning Center; awarding faculty recognized for teaching excellence with an endowed chair valued at \$22,500 over 3 years through the Endowed Chair Program; supporting travel to professional development conferences as funding allows; and permitting employees to attend MDCC courses at no cost, up to six credits each term.

In addition, many programs have built-in mechanisms for enabling faculty to stay current with trends in the field. For example, a grant program enables nursing faculty to return to hospitals to update skills and knowledge, and architecture faculty are required to attend workshops on the use of current architectural drawing software.

Students can improve their GPA by repeating a course and improving their competence. One example in which the college is competency- rather than time-based is in its policy on repeating courses. A student may repeat a course taken at MDCC, or have transferred from another school, to improve his or her cumulative GPA. The GPA is recomputed to count only the most recent attempt at that particular course, even though the transcript will show repeated courses.

Offering a wide range of training opportunities. MDCC offers preparatory courses for 63 majors for the associate in arts degree. These University Parallel or College Transfer areas of concentration prepare the student to enter the junior year at 4-year upper-division colleges and universities. The associate in science degree is specifically tailored for immediate entry to the business or industrial world, although many of the programs include courses which may be transferred to a university if the student decides to pursue a 4-year degree. There are 38 programs from which to choose in the A.S. degree category. Additionally, the college offers 42 vocational credit certificate programs, as well as allied health/nursing programs.

Open Access

Opening the doors of learning to everyone. The college is accessible to everyone. It has an explicitly stated open door policy which provides educational opportunities to all who are interested in participating in the degree programs, courses, and services offered by the college. The college welcomes all students, regardless of sex, race, religion, marital status, age, national origin, or handicap.

Special support services for students with disabilities. The college also has special support services to assist disabled students in achieving equal opportunity. These services include

assistance with registration, advisement, financial aid and readers for blind persons, interpreters for deaf students, notetakers, and special equipment, as well as individualized classes and tutoring and special testing accommodations.

The Open College at Miami-Dade offers college credit courses through videocassettes, audiocassettes, and independent study. With the exception of a few courses, students only have to come to campus twice each semester, and they can interact with teachers via telephone and appointments. Provisions are made for disabled persons to take tests in their homes. Students in the Open College have the same privileges as on-campus students, and course credits are equivalent to those earned on-campus.

Portability of Skills

Provides training in academic and workplace skills. The college offers academic degree programs, vocations credit certificate programs, and a variety of enrichment and continuing education courses to the community. Through cooperative education programs and practicums, students gain hands-on, applied training.

Students gain marketable skills and knowledge. Students are learning skills that are portable from firm to firm and from region to region, depending on the local labor market needs. The college develops programs in response to projected labor market needs. See section “Demand-Driven Design” for details.

MDCC promotes lifelong learning. MDCC offers continuing education programs, evidence of its commitment to the philosophy that learning is a lifetime process and that many years spent in formal education do not complete the learning experience. Continuing education units (CEUs) recognizes a student’s participation in a course and is defined as 10 contact hours of participation in an organized continuing education experience under qualified direction and instruction. CEUs can be used to show evidence of professional development to employers and licensing and certification agencies.²⁰

Continuous Improvement

Evaluate and assess students’ and teachers’ performance on a regular basis. Students and faculty must have a clear understanding of the goals and requirements of each course, the nature of course content, and methods of evaluation. Methods of instruction must help fulfill the goals of each course and be appropriate to the capabilities of students. Experimentation to improve instruction must be adequately supported and critically evaluated.

According to college policy and established departmental procedures, at the first class session of each term the instructor must inform students in writing of all objectives, significant course requirements, and the method of evaluating their performance.

²⁰ *Miami-Dade Community College Catalog 1995-1996*, Vol. XXXI, first printing. Miami-Dade Community College: Florida, p. 75.

Expectations about written assignments, quizzes and exams, textbook and attendance requirements, and laboratory work and research are outlined in detail.

MDCC evaluates students' progress throughout their careers at the college and provides advising and guidance services accordingly. There is a grading system used to compute GPA, with grades ranging from A (excellent, 4 points) to F (failure, 0 points). MDCC has a formal process through which the administration and faculty can identify and provide assistance to students who experience academic difficulty. These "Standards of Academic Progress" reflect the school's commitment to assist students to ensure that they meet their educational goals, and are in no way intended to discourage or penalize students. Categories within the Standards are: academic warning, academic probation, and academic suspension. In addition, the college has an Honors/Emphasis on Excellence Program which gives special recognition to students who demonstrate outstanding academic performance while they work toward their degrees.

Florida also requires students to take the College Level Academic Skills Test (CLAST), an achievement test mandatory for graduation with an associate in arts degree or admission to the upper division of state universities in Florida.

The campus Teaching/Learning Center encourages faculty to improve instruction and promotes development and evaluation of instructional methodologies and professional development. Student feedback indicates that more than 90 percent of students agree that course objectives are distributed, that there is agreement between objectives and what is taught, and that exams are related to course material.

External evaluators review MDCC's programs. The college requires each associate degree program to undergo a continuous review process to evaluate overall effectiveness. The college further requires each program which prepares students for a specialized occupation to have an advisory committee made up of local business and professional leaders. Appropriate administrators and department chairpersons serve as ex-officio members. Feedback is gathered from these committees as well as from focus groups which consist of current and former students, program graduates, faculty from 4-year programs, and employers. A collegewide panel of representatives from the program and related disciplines conducts a formal review of each program every 3 years.

In addition to the college review process, the State Board of Community Colleges (SBCC) uses a trilevel program review process developed with institutional participation. At Level I, the SBCC produces an annual report on specific data relevant to individual instructional programs. At Level II, the data from Level I are forwarded to each community college in the state for local review. As a result, the community college examines programs selected on the basis of results of the data. At Level III, a statewide review is coordinated by SBCC staff to respond to issues of statewide policy, articulation, or funding.

Thus, MDCC's programs are evaluated on a cyclical basis to assess the relationship between the training provided by the college and current practices in each field of specialization.

Evidence of the effectiveness of this effort can be found in the success rate of MDCC students on licensure examinations and in that many programs receive awards and recognition both locally and nationally.

Public-Private Partnerships

Strong relationships with the community. The college has strong ties with the county and conducts assessments at regular intervals to project workforce needs. Area employers work with the school to develop internships for students as well. See section “Demand-Driven Design” for details. Furthermore, some companies donate or loan equipment to the school, especially to the health and medical technology program. For such a program, the purchase of equipment and machinery would be prohibitively expensive.

In addition, at least one of the campuses offers short-term training in response to community needs, either at the requester’s site or on campus. MDCC and local employers work together to develop cooperative education experiences for students, offered in a wide range of career fields. Co-op work experiences are tailored to the student and employer’s needs, and can be full-time, part-time, paid, or voluntary.

The public sector supports the college. The public sector is the major funding source for the college, including its operating costs and financial assistance to its students.

Sustainable Financing

MDCC has multiple funding sources. For most U.S. community colleges, the major budget resources are federal, state, local, and tuition.²¹ The college’s funding comes from state support (general revenue plus lottery) and student fees. In 1992, Dade County citizens approved a referendum that gives approximately \$9 million of income to the school annually, in the form of the Community Endowment. The money comes from proceeds of a 2-year, 3/4 million dollar property tax. The college has an operating budget of approximately \$170 million. The MDCC Foundation, Inc. consists of the trust fund bequeathed to the college by the late Colonel Mitchell Wolfson, the College’s first board chairman, the Community Endowment, and the Margin of Excellence Endowment.²²

MDCC ranks seventh highest among Florida’s 28 community colleges in terms of percentage of total expenditure devoted to direct instruction. Almost 53 percent of MDCC’s budget goes to instruction. Roughly, the college allocates a bit more than half of its instructional expenditures to college-transfer programs; about a third to occupational programs, and the remaining to college preparatory and adult education.

²¹ AACC Membership Profile, World Wide Web, May 1995.

²² *Miami-Dade Community College Fact Book 1994-1995*: Miami-Dade Community College, Institutional Research, 1993-1994. p. 54.

All stakeholders invest in the education process. Students pay tuition and fees. Employers may provide internships or co-op experiences for students, or they may donate or loan equipment to the college.

Financial assistance is available to those who need it. For students, financing is somewhat flexible. Approximately 40 percent of the students receive some form of financial aid, more than half of which is in the form of grants and scholarships. Loans and college employment make up a smaller portion of aid. Other sources of aid are the federal government, the state, and private contributions.

Replicability

The community college system is thriving in the United States, evidence of the replicability of the institution. The American Association of Community Colleges, serving colleges in the United States for the last 75 years, boasts a membership of 1,046 institutional members, including 36 campuses of multicampus colleges. One-third of the association's members come from California, Illinois, New York, North Carolina, and Texas. At least half of the members were established in the 1960s and 1970s, largely a result of population, policy, and economic changes in those decades.²³ The community college is a unique institution in the United States, specifically designed to serve multiple goals, including preparing the workforce and enhancing economic development in local regions. Several countries are working with specific community colleges in the United States to develop similar institutions for their students and adult populations.

Economic and Social Impact

Helping the economy by creating a larger consumer base. MDCC's presence contributes more than \$36 million to the local economy because of the increased wages earned by graduates.

Helping the economy by increasing the skills of its workforce. MDCC's many flexible programs help people of all ages develop better skills. MDCC also provides customized training programs for local businesses, providing them with customized training programs that will make their enterprises more competitive.

Using technology as a teaching and learning tool. MDCC has many technology-based programs and projects exemplifying commendable uses of technology. The following are just a few of the many highlights:

- Campuswide: Project SYNERGY, a program which supports underprepared students in reading, writing, mathematics, ESL study skills, and critical thinking through electronic classroom labs at all campuses.

²³ Ibid.

- North Campus: The School of Justice and Safety Administration has labs for development studies, computer information systems, computer aided-design, vocational support, and business. The graphic technology lab has been nationally recognized as the largest electronic publishing facility in the nation.
- Kendall Campus: Emphasizing faculty development in the use of technology for instruction and productivity, projects toward this end include the Teaching/Learning Center, Technology Practicums (TP), Computer Applications Projects (CAP), and Project Prometheus. The 158 faculty selected for the CAP and TP programs received multimedia development training and support enabling them to create instructional materials. The Teaching/Learning Center provides support in integrating technology into the curriculum, applications training, software review, multimedia courseware development, and related services for faculty, staff, and administrators.
- Medical Center Campus: The Developmental Studies Lab provides individualized computer-based instruction and assessment for students engaged in pre-college work. The Vision Care Lab uses a computer network to track patients and to train student technicians in medical network operations.
- Homestead Campus: This campus has a multi-access, three-tiered educational model that offers a traditional format, an on-campus facilitated format and an off-campus distance education format all of which are extensively and strongly supported by technology. The Facilitated Learning Program won its developer the Innovation of the Year award from the League for Innovation in the Community Colleges.

Valuing the environment. The college offers a number of programs for students wishing to pursue a career or future study in environmental fields, including: agriculture, biology, engineering, environmental science technology, forestry, geology, landscape architecture, and landscape technology.

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Primary author: Gail Greenblatt Saporito

Asia

Cases

Australian National Training Authority
(ANTA), Australia

Penang Skills Development Centre,
Malaysia

Regional Institute for Research in
Workforce Formation, Education, and
Development (RIBB), China

Integrated Recruitment, Training and
Placement Program (IRTP), Philippines

Social Fund for Development (SFD), Egypt

Skills Development Fund, Singapore

Self-Employed Women's Association
(SEWA), India

Regional Profile

The Asia and Near East region is of major and growing importance to the future of the globe. The sheer population sizes and economic growth rates of these areas present both enormous potential markets for many countries' goods and services, and daunting challenges to economic development. The population of Asia and the Near East, already more than half the world's total, is expected to double in the next 30 years. Although women in many of the Asian and Near East countries now average two fewer children today than their mothers did 30 years ago, the average 2.2 percent annual population growth rate still produces staggering numbers of additional people each year who need food, shelter, jobs, and social services (USAID, 1996). Growing populations also create new strains on infrastructure and the environment.

More than 560 million people in this region live in poverty—nearly half of the poor people on the globe. India, with a population approaching one billion, has more poor people than all of sub-Saharan Africa. Half of the world's infant and child deaths occur in Asia and the Near East, and half of those deaths are in India's large pockets of poverty alone (USAID, 1996). However, with economic growth and reform, some countries have been remarkably successful in addressing

poverty. Indonesia, for instance, has reduced the percentage of people living in poverty from 60 percent in 1970 to less than 15 percent in 1990.

The developing countries of Asia have some of the world's most dynamic economies. Although growth has slowed somewhat since 1988, it is still faster than in any other region in the world (5.8 percent in 1991, compared with 2.1 percent for the developing countries as a whole). Between 1980 and 1993 GDP grew at an average annual rate of more than 5 percent, and per capita gross domestic product (GDP) by 3 percent. Merchandise exports grew at an annual rate of nearly 7 percent during the period from 1980 to 1992 (UNDP, 1996).

As countries in Asia and the Near East successfully lift their citizens out of poverty, they create resources for national development and they expand potential trade markets. To tackle poverty and promote economic development, countries in Asia and the near East must continue to address high population growth rates, high infant and maternal mortality, low female literacy, and new threats such as HIV/AIDS.

Economic and population growth have dramatically increased pressures on the environment in Asia and the Near East. Continued economic growth demands the more efficient and sustainable use of the region's increasingly scarce natural resources. Growing ground-water, air and other pollution problems have accompanied rapid growth, especially in urban areas. The percentage of the region's people living in urban areas will increase to over 50 percent by the year 2025. Eleven of the world's 25 megacities (10 million or more inhabitants) will be in Asia and the Near East. In India alone, there will be more than 40 cities with one million or more inhabitants.

The generally low status of women presents another development challenge in this region. Women in Asia and the Near East have benefited less from social and economic changes than women in any other region of the world (USAID, 1995). Female life expectancy, normally 10 percent higher than for males, is only imperceptibly higher in Bangladesh, Egypt, India, Nepal, Pakistan, Tunisia, and Yemen. This dismal state is associated with many factors. Maternal

mortality rates in seven countries (Bangladesh, Cambodia, India, Indonesia, Laos, Nepal, and Yemen) remain among the highest in the world. In Nepal, the maternal mortality rate is 833 women per 100,000 live births compared with fewer than 10 per 100,000 live births in developed countries. Women also lag behind men in access to educational and economic opportunities in Asia and the Near East. Failure to address women's health, education, and economic roles exacerbates the difficulty and costs of development. Conversely, improvements in women's status often bring parallel improvements in fertility rates, household income, and child mortality—all necessary changes for sustained economic growth. The Cairo Conference on Population and Development highlighted the role of female education and employment in lowering fertility (USAID, 1995).

Relevance of the *Compass to Workforce Development Toolkit* to the Region

This region is extremely diverse. While the Newly Industrialized Economies (NIE) now face severe labor shortages, other countries in the region have serious problems of unemployment and underemployment. While some targeted populations face bright employment prospects, others face bleak ones. Continued economic growth and trade expansion demand a more efficient and skilled workforce capable of dealing with many of the challenges associated with sustainable development, particularly those challenges related to economic growth, the protection of the environment and human health, and democracy building.

In Singapore, the demand for labor has outstripped supply for more than a decade and the government has had a carefully controlled policy of bringing in foreign workers as needed and expelling them when no longer required. Malaysia, too, is suffering labor shortages. Urban factory workers leave for Singapore and migrants from the rural areas come to take their place, leaving labor gaps in the rubber and palm oil plantations which have to be filled by unskilled workers from the Philippines and Indonesia (ILO, 1995).

Indonesia is at an earlier stage in the transition to a NIE status, but this is another example where too rapid growth has boosted the demand for labor. Between 1983 and 1990 the production by

export industries grew at an annual average rate of nearly 43 percent. This generated an extra million jobs in manufacturing as well as in finance, marketing services, banking and transport. This has boosted demand for specialists, a demand which has partially been met by converting people from other professions such as engineering, but the demand has not been fully met. Yet, despite this job growth rate, there is also an emerging problem of unemployment for educated young people. Projects such as the Skills Development Fund in Singapore and the Penang Skills Development Centre in Malaysia strive to support enterprises and their workers by providing training and skills improvement that readies lower-level workers to enter the expanding technical and higher skilled job sector in these NIE countries.

Other countries in South East Asia have widespread unemployment. In the Philippines, political instability and the lack of structural reforms have held back economic development. Very high unemployment and underemployment rates reflect an underutilization of the education and skills workers have obtained. Yet, the Philippines has realized a return of sorts on its human resources investments. Many educated Filipinos took their skills abroad, and their remittances became the largest source of foreign exchange earnings. But in reality, what the Philippines and a similar situation in Vietnam demonstrate are that expansion of human capacity delivers its full potential only when there is a corresponding increase in market-driven demand. Striving to better match supply and demand, Integrated Recruitment, Training and Placement Program (IRTP) in the Philippines provides a model of how to increase the skills of the poor and increase the commitment of the private sector to employing them.

According to the 1995 World Labour Report, workforce developments in India are more difficult to follow. Here the organized sector has only been growing slowly, and the majority of new entrants to the labor force had to be absorbed by the informal sector. Simultaneously there has been a rise in casual employment, but according to ILO reports, it is not clear whether the rise in these new types of employment are a sign of the dynamism of a flexible labor market or just the general acceptance by workers that they do not have any other alternative. The Self-Employed Women's Association (SEWA) in India is an excellent example of addressing many of the

problems on the Subcontinent and in South East Asia that center around providing support to the burgeoning informal sector and increasing the economic participation and health of the poor.

China, on the other hand, had virtually no unemployment until the 1980s. After the upheavals of economic reform, it became evident that up to half the labor force in some rural areas had been unemployed or underemployed (UNDP, 1996). Since then China has reversed long-standing policies and adopted an employment-led growth strategy. In 1992 China's active labor force was 594.3 million, of this number, 348.5 million were employed in agriculture and 156.3 million in the state, collective and private sectors. The number of those employed in the collective sector has increased rapidly by 73 percent between 1978 and 1990 (The Far East and Australia, 1995).

China's economic reform has reached a stage where many of the relatively straight forward reforms have been implemented. For instance, in the Chinese educational system both regular and vocational secondary schools sought to serve modernization needs. A number of technical and "skilled workers" training schools have reopened recently, and an effort has been made to provide exposure to vocational subjects in general secondary schools by offering courses in industry, services, business and agriculture. In an effort to coordinate policy and import the best practice from other nations, the city-state of Shanghai has created the Regional Institute for Research in Workforce Formation, Education, and Development (RIBB). This research and development organization provides a model of handling transition in societies where traditional roles and responsibilities are being redefined.

In the Near East, the generally poor economic performance of the Arab States (ILO, 1995) has had a severe impact on employment. Many countries have been unable to provide work for the increased labor supply which has resulted from high population growth. In some of the countries unemployment has exceeded 25 percent since 1990. Unemployment is particularly high in the labor-sending countries, especially after the return of Arab nationals following the Gulf Crisis. Return migration poses a severe problem in Jordan, Lebanon, Sudan, and Syria (World Bank,

1995, UNDP, 1996). The economic dislocation for returnees and the plight of the poor, common across the Near East, are addressed in the Social Fund for Development (SFD) case in Egypt.

Australia has suffered from the low growth and high unemployment characterizing the OECD countries in the early 1990s. In 1992-93, the economy recovered slowly from the prolonged recession of 1990-91, a major restraining factor being weak world demand for Australia's exports. Growth picked up so strongly in 1994 that the government felt the need for fiscal and monetary tightening by year end. Australia's GDP grew 6.4 percent in 1994, largely due to increases in industrial output and business investment (CIA, 1995). In Australia, where academic and vocational education are held in equal esteem, the Australian National Training Authority (ANTA) has the responsibility for achieving consistency at a national level. This case is a discussion of the functions expected of such an authority and how one nation approaches the question of integrating its educational, workforce and employment issues.

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REGION: Asia

Australia
Australian National Training Authority

Case Overview

The Australian National Training Authority (ANTA) was established in 1992 as a cooperative venture between the states and the federal government to try to achieve consistency in the provision and delivery of training on a national level. ANTA is a policy and funding coordination body. It does not provide programs or services, but rather is set up to deal with issues such as standards, assessment and credentialing of training providers, training courses and programs. ANTA became the coordinating board of vocational education and training six years after the federal government had begun the coordinating efforts.

Primary objectives of ANTA are:

- To create a world-class education and training system with standards, policies, and frameworks that are consistent across all of the country's training providers.
- To include all interested partners in the development of the policies and planning affecting the training system so that it responds to all clients and their training needs.
- To ensure the system responds to education and training best practices, as well as workers' career objectives as they change and grow over time.

ANTA's policies reach all of Australia, geographically and demographically, and cover the entire labor market. Australia's system is unique in that it integrates various components of education and training. ANTA brings together all the stakeholders, including state, territory, and commonwealth governments, vocational education and training authorities, private training providers, industry and Industry Training Advisory Bodies (ITABs), unions, and employer associations into a framework to provide national consistency. ANTA's partnership reflects the desire to integrate academic and vocational education with training and its commitment to providing students with up-to-date competencies in these areas.

ANTA's major achievements for 1995 are highlighted in its 1995 annual report. These achievements include:

For students:

- Seventy million dollars available for 35,000 more training positions for school leavers, those in the workforce, and those seeking to enter it.
- Introduction of a system of nationally recognized qualifications articulating from school to university.

- More courses that meet industry standards.
- Percent employment rate for graduates.
- A decline in the unemployment rates for graduates.
- A boost in earnings for 37 percent of full-time employees.
- Piloting of user choice for apprentices and trainees.
- In many industries, career advancement is tied to training.
- More flexible delivery in the workplace, at home and out-of-hours.

For employers:

- More courses that meet industry needs specified by standards.
- Agreement on reform of entry-level training including new apprenticeship and traineeship products under development for use across industries.
- Piloting of user choice for employers of apprentices and trainees.
- Quality certification of training providers.
- Greater recognition of employer achievement, including small business through state and national training awards.

For public providers:

- Increase in resources and growth in student load.
- Introduction of “best practice” recognition scheme.
- Recognition of and certification for quality.

For private providers:

- More than 1,900 providers registered.
- Introduction of national qualifications framework.
- Recognition through best practice scheme.
- Access to management development scheme.

Why This Case Was Selected

ANTA was selected because it:

- Demonstrates how workforce development policy is used to support the growth of a country’s export economy.
- Demonstrates the collaborative relationship between organized labor, employers, education and training providers, and government.
- Provides an example of how government can add value to existing training and delivery providers by improving efficiency and eliminating redundancies.
- Helped introduce a single set of national recognized standards and credentials that provide a measure of quality assurance and are portable.

Background

Australia has a prosperous Western-style capitalist economy, with a per capita gross domestic product (GDP) comparable to levels in industrialized countries in Western Europe. Rich in natural resources, Australia is a major exporter of agricultural products, minerals, metals, and fossil fuels. Primary products account for more than 60 percent of the value of total exports, so that, as happened in 1983-1984, a downturn in world commodity prices can have a sizable impact on the economy.

The inability to create sufficient economic growth by relying on internal demand market for domestic goods and services is a situation faced by many developing and industrialized countries. Sustaining Australia's economic growth depends on its ability to stimulate growth of exports. Fortunately, the country is strategically positioned to serve as a gateway to Asia.¹ The government is working to increase exports of manufactured goods, but competition in international markets continues to be severe. Helping young Australians gain advanced skills through ANTA will help maintain Australia's participation in the world market

Australia has suffered from the low growth and high unemployment that characterized Organization for Economic Cooperation and Development (OECD) countries in the early 1990s. In 1992-1993, the economy recovered slowly from the prolonged recession of 1990-1991. One of the major factors that restrained the country's recovery was the weak demand for Australia's exports. Growth picked up in 1994, so strongly, in fact, that the government felt the need for fiscal and monetary tightening by year-end. Australia's GDP grew 6.4 percent in 1994, largely because of increases in industrial output and business investment.

The current fiscally conservative government, led by Prime Minister John Howard, may bring about some changes in the current wage fixing structure, which could in turn affect vocational training and the system of competency levels in each occupation. Competency levels are connected to particular classifications, and each classification is linked to a range of wages. The government could take measures that would reduce the incentive to upgrade skills by, for example, weakening the certificates that give entitlements for wages. The Arbitration Courts, which determine wages associated with each certificate level, work on an occupation basis; the electronics union could go to the Court to change a wage, and the Court's decision would apply to the whole country evenly. Future wage arbitration may end up being on a firm by firm basis, which could strike a blow to the value and portability of certificates.²

Leadership and Accountability

A common framework for policy, planning and standards ensures a consistent national education and training system. The guiding philosophy behind ANTA is to bring together numerous organizations and interested parties in order to create a cohesive, nationally

¹ CIA FactBook, World Wide Web, 1995.

² Ibid.

consistent structure for education and training with appropriate standards, policies, and frameworks. This cooperative effort is directed toward achieving a world-class training system responsive to all clients and their training needs. The Ministerial Council is at the top of the National Vocational Education and Training System. The Australian National Training Authority reports to the Ministerial Council and oversees the Standards and Curriculum Council and the National Staff Development Committee, along with the national ITABs. The State ITABs report to the state training authorities, who report to the state ministers, who report to the Ministerial Council.

The key planning mechanisms for the national vocational and education training system are the National Strategy for Vocation Education and Training, Industry Vocational Education and Training Plans, and State and Territory Training Profiles. The National Strategy, first released in 1994, set broad strategic directions for vocational education and training, giving industry and training agencies a framework for planning. State and territory Training Profiles are comprehensive plans developed by each state and territory, in a common format, for the provision and support of vocational education and training for the year ahead. The profile is developed in consultation with ANTA and is endorsed by the Ministerial Council. Industry Vocational Education and Training Plans are developed by ITABs, whose membership includes representatives from industry.³

Partners share a commitment to a core set of values. The key themes of the National Strategy, as endorsed by the Ministerial Council and held by ANTA, include:

- *Respect.* For all types of education and training, including the importance of providing students with equal choices rather than strict, one-way paths that would determine the course of their work life years down the road.
- *Flexibility:* Striving to achieve high quality outcomes while being responsive to the needs of individuals, employees, industry, students, and the nation.
- *Lifelong learning.* Recognizing the need to upgrade skills continually to be able to participate in the global economy.
- *Greater responsiveness.* Including a commitment to increase the diversity of the training market; measures to facilitate high quality input and handle the distribution of resources within, and between, industry sectors.
- *Enhance quality.* Including the development of national measures for best practice and the introduction of quality assurance arrangements.
- *Improve accessibility.* Recognizing the need to study industries with low worker qualification profiles; and recognizing the different aspirations, strengths, and needs of all clients, in particular the needs of groups that have been identified as underrepresented in vocational education and training (See “Open Access”).
- *Increase efficiency.* By setting up a national management information and statistical system, by having states and territories report on performance against the agreed-upon performance measures, and by increasing the understanding of training reform.

³ Annual National Report for 1995. Australian National Training Authority, Vol. 1. Draft as of 6/26/96. pp. 7-9.

Demand-Driven Design

Employers work to improve and systematize training within their respective industries. In Australia, ITABs on both the national and state level work with industry, enterprises, governments, and training providers to improve training for their respective industries. ITABs are independent, incorporated associations or companies whose directors are industry leaders. ITABs are supported in each state and territory by networks which reflect the industry profile of that area. ITABs work on developing national industry competency standards, cooperating directly with industry and training providers to implement training arrangements responsive to their regions' needs.⁴

Training plans foster comprehensive education and continuous improvement. The training plans that ITABs develop include an industry profile, competency standards, curriculum, accreditation, classification (based upon the Australian Qualifications Framework, for qualifications in post-compulsory education and training, including levels, titles, and descriptions), and skills assessment.

Because of concern about the distribution of resources, in 1995 the number of national ITABs was reduced from 43 to 18. The reorganized ITABs have greater representation from companies on their boards. ANTA provided financial support for the restructuring effort, based on priority proposals from each ITAB. ANTA reports "patchy progress" on the new national ITAB network. On the state level, ITABs are also restructuring to focus on regional needs.⁵

Promoting training for small businesses. Besides its work with ITABs, ANTA convened the first small business forum to obtain advice and input on small business training issues. Along with ANTA, the forum will develop a strategy to boost training in small business and to ensure that those working in small business have the skills necessary to meet future business needs. More than 2.5 million Australians are employed in the 794,000 small businesses in Australia, constituting a substantial part of the national economy.⁶

Wages are tied to the worker's competency level and occupation classification. Australia's wage fixing system, which began in 1908, has different entry-level wages for every occupation classification. The occupations are broken down very specifically. For example, within the field of hospitality, there are occupation strands such as Catering, Tourism, Hospitality and Management, and Travel Agent, to name a few. Each occupation strand has eight competency levels, and each competency level is connected to a particular classification. The classification means that the worker is entitled to a certain range of wages. People can complete training sequences either at work, through a private provider, or through Technical and Further Education colleges (TAFE), and earn certificates which show

⁴ Ibid., p. 15-16.

⁵ Ibid.

⁶ Ibid., p. 21.

they have achieved a certain competency level and hence are entitled to a higher wage. The wages are organized through Arbitration Courts.⁷

Open Access

Identifying training priorities and barriers for specific indigenous groups. Indicators show that the indigenous aboriginal population is the most socially and economically disadvantaged group in Australia, with unemployment in 1994 being three times higher than for the non-aboriginal population. In 1995, in response to this discrepancy, ANTA established the Interim Aboriginal and Torres Strait Islander Peoples' Training Advisory Council to provide advice on priorities in vocational education and training. In addition, it earmarked \$15 million during the period 1996-1998 for national capital infrastructure projects to establish independent Aboriginal training facilities.⁸

Identifying training priorities and barriers for women and girls. In 1995, approximately 62 percent of women aged 15 to 64 had no post-school qualifications, compared with 52 percent of men. Only 21 percent of women held a vocational education and training qualification compared with 33 percent of men.⁹

ANTA funded a National Vocational Education and Training Women's Strategy, which the Vocational Education, Employment and Training Women's Taskforce developed. This strategy identified continuous improvement measures, training and staff development, standards, curriculum and delivery, pathway planning, balanced representation, and promotion and research as topics that needed to be studied and discussed.¹⁰ Besides these efforts, ANTA commissioned a number of discrete projects to investigate particular areas of women's experiences within vocational education and training.

Identifying barriers and training priorities for people with disabilities. More than half of handicapped Australians are not participating in the labor force, and of those who are, more than 21 percent are unemployed. ANTA held a national training priorities seminar in 1995 to gather input from people with disabilities and the industries that employ them. Among the needs that the participants identified were a commitment on the part of training authorities to (a) provide accessible and flexible learning and resolve funding issues associated with support requirements and (b) provide relevant and accessible information to people with a disability and raise employers' and training providers' awareness of specific needs.¹¹

Identifying training priorities for rural or remote communities. According to the 1991 population census, 30 percent of the population lived in rural or remote areas. Students in these areas were proportionately represented in Technical and Further Education (TAFE) programs, overrepresented in the lower-level certificate courses, and underrepresented in

⁷ Conversation with Margaret Vickers, Jobs for the Future. August 1996.

⁸ Ibid., p. 31-32.

⁹ Ibid., p. 32.

¹⁰ Ibid.

¹¹ Ibid., p. 33-34.

advanced certificate, associate diploma, and diploma courses. ANTA has commissioned a research project to identify the training needs and priorities of students in remote areas, but, in the meantime, have taken a few measures to improve teaching and learning practices. One achievement is the establishment of an Open Learning Centre at New England Institute of TAFE, New South Wales, in partnership with Tamworth City Council, the University of New England, the North West Health Service and the Department of School Education. Technology is used to link 33 sites in northern New South Wales and southern Queensland. A second achievement is the establishment of a Flexible Learning Centre to provide after hours access to a range of computing facilities. The centre coordinates enrollments for flexible delivery courses and acts as a central information and guidance point regarding flexible delivery.¹²

Portability of Skills

National vocational skill standards ensure portable credentials. Starting in 1986, industry associations, training providers, government authorities and unions have worked together to create a consistent, nationwide set of vocational standards so that the skills acquired at work or through training programs will be portable from region to region and from firm to firm. For example, on a national level, Australia has a Standards Framework, a set of eight competency levels for each occupation that serve as benchmarks for developing and recognizing competency standards necessary to work. It also has a Common Agreed National Goals for Vocational Education and Training and a National Framework for Recognition of Training, which articulates nationally agreed upon principles for accreditation, recognition of training programs, and registration of training providers.

Public-Private Partnerships

ANTA coordinates the efforts of public and private organizations. ANTA's purpose is to help systematize and coordinate efforts around education and vocational training. It brings together state, territory, and commonwealth governments, public and private training providers, industry, unions, and employer associations to integrate education and training and to ensure national consistency.

Sustainable Financing

ANTA is funded by federal and state money. ANTA is a national coordinating body comprising a partnership of the commonwealth (the federal government) and state and territory ministers responsible for vocational education and training. It is jointly funded by the commonwealth and the states, with each state contributing proportionately to its budget.

Replicability

¹² Ibid., p. 35.

ANTA could be replicable in federal countries or regions that have an interest in standardizing its education and training delivering service/system. The U.S. Department of Labor has studied the Australian system as part of its benchmarking of best practice in the development of national industrywide voluntary skill standards.

Economic and Social Impact

Investments in a more efficient and effective training system yield a more employable and larger workforce. The Australian Standards Framework is designed to systematize training and delivery in Australia, thus ensuring portability and reducing duplication. ANTA has such a far-reaching impact with the various projects and initiatives it funds that it affects the economy and society. First, industry is encouraged to invest in the development of better qualified workers, whether it be by providing in-house training or contracting a private training provider. The workforce is likely to be more employable as well, because skills and job descriptions are so well-defined and are nationally agreed upon. Further, people know that the certificate levels they hold will be recognized anywhere in the country, and that they will get the same wage regardless of where they work for that particular classification. Since training is systematized, a person could get training and earn a certificate on the job, and then proceed for further training in TAFE. TAFE, as well as any training provider, acknowledge the competency level represented by the certificate and begin training at the next stage. There is no repetition of coursework or training.

Providing mechanisms to improve accessibility for all populations. ANTA is concerned with equal access and opportunities for vocational education and training for all populations. Specific steps that the authority has taken to help achieve equity in this regard is detailed in the section "Open Access." One example of a specific program that ANTA coordinated with the goal of improving access is called the Network for Women in Vocational Education (WINVET), housed at the Canberra Institute of Technology. WINVET will provide a forum for women who manage and deliver vocational education and training. The forum will assist women in establishing and enhancing professional dialogue as well as sharing ideas and achievements. The network covers the entire Vocational Education and Training sector, both public and private, across Australia and the Asia Pacific. It will also support women in vocational education and training who are in geographically isolated regions.¹³

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REGION: Asia

**Province of Shanghai, China
Regional Institute for Research in Workforce Formation,
Education, and Development**

Case Overview

In 1990 the city-state of Shanghai established the Regional Institute for Research and Development in Workforce Formation and Education (RIBB). The institute's mission is to develop a dual system of education and training in Shanghai, patterned after Germany's system of combining learning at work with learning at school. Its purpose is to conduct research studies, develop pilots, test and evaluate them, and then bring them to scale following the model of Germany's Bundesinstitut für Berufsbildung (German Institute for Research and Development in Workforce Formation and Education, or BiBB).

The primary objectives of RIBB are:

- Assist Shanghai leaders to build the social partnerships with employers, various ministries, and fledgling trade unions critical to the dual system.
- Provide expertise and information to Shanghai policymakers in the development of new laws and new skill standards for vocational education and training.
- Conduct research, develop pilots, test and evaluate pilots, and help Shanghai counterparts bring them to scale throughout the province.

The RIBB was created in response to a 1988 World Bank Report on China. This report called for a drastic overhaul of the nation's vocational education and training system which prepared people to perform one narrow job for a lifetime within a state-owned enterprise. Although this was common to many countries under Communist rule, China's situation was perhaps even more extreme, as the focus on narrowly conceived tasks and jobs fit well into China's 2,400-year-old Confucian tradition of a highly codified system of human relationships and status. For example, in this tradition an individual who is born to parents who are basket weavers will also be a basket weaver. Instead of aspiring to something "better," Confucianism encourages him to be the best basket weaver he can be.

Helping China's economy grow clearly required a fundamental change in the country's manner of thinking about labor markets, the structure of work, and vocational education and training system. In 1989, the Chinese government conducted a complete review of its requirements for education and training, subsequently receiving a US\$50 million credit from the World Bank to overhaul the country's system of preparing youth for work. Chinese experts visited the United States, Japan, and Germany to learn about each country's system of preparing its workforce. This review would help them determine which method could best

help them overhaul their system so that China's youth could develop skills needed for the country's rapidly growing economy.

German education and training experts had worked in China since the early 1980s on a number of small-scale pilot projects such as training *meisters*: (a technical term for a masterworker who is also certified to teach youth), and on initiatives to develop continuing education and advanced training. High-level negotiations between the two countries resulted in a bilateral agreement to help China prepare its youth along the lines of Germany's dual system which combines learning at work with learning in school for youth between the ages of 17 and 20 or 21. (See the case study "Federal Republic of Germany: The Dual System of Education and Training.") With the pledge of technical expertise from the German Agency for Technical Cooperation (GTZ), three Chinese provinces (Shanghai, Peking, and Liaoning) were selected to develop the system.

Based on earlier experience on various pilot projects, German and Chinese policymakers concluded that their primary challenge would be to sustain and bring to scale pilots that could demonstrate successful outcomes. How could the German experts build the necessary capacity in the province so that the system would function after they left in accordance with agreed-upon 9 years of technical assistance? Policymakers agreed that the best strategy would be to establish regional institutes for research and development in workforce formation, education, and development (RIBB). These institutes would conduct the necessary research studies, develop pilots, test and evaluate them, and then bring them to scale. This case focuses on RIBB, one such institute located in the city/province of Shanghai. In this institute, German experts work with Shanghai partners to fully develop the organization and workforce education and training system following the dual system model over a 9-year period. The first 3 years of their efforts were spent on research and establishing the necessary social partnerships, as well as putting in place modern technical equipment to create better working conditions. The first pilot projects began during this time period. For the current 3-year period the institute is developing pilot projects on curriculum development, teacher training, and evaluation systems. In the final 3 years of technical assistance, successful pilots will be brought to scale.

Since RIBB's beginnings in 1990, German experts and Shanghai partners have developed extensive teaching and training materials, as well as a fully worked out curriculum for three pilot occupational groups: mechanic, business management, and electronics-technology. They have established a series of relationships with the Ministry of Labor, the Education Commission, and other institutions. These relationships are critical to their ability to accomplish the purpose of the Institute, as the results they produce have to be developed with the full support and partnership of the institutions who are stakeholders.

Why This Case Was Selected

The Shanghai RIBB was selected for its:

- Focus on research and development in workforce development.
- Emphasis on establishing sustainable partnerships between many of the stakeholders in an entire province of China.
- Ability to introduce broad systems change into an established culture whose labor markets were narrowly defined within the Confucian and subsequent Communist tradition.
- Influence on national legislation supporting the reform of technical and vocational education and training.
- Focus on developing skills profiles and curricula for industry sectors (financial services, hospitality, electronics).
- Potential influence on the world labor market.

Background

China's current growth rate of 1.2 percent a year will double the country's population of 1.2 billion (1993) at the end of 60 years. Its 1993 gross national product averaging \$310 (compared with \$22,000 for Germany), places the country in the ranks of poor nations. Average per capita income (1993) is 2,337 RMB a year (Renminbi or Chinese People's Currency) or US\$281. Of China's 820 million in the labor market, approximately one-fourth are unemployed or underemployed.¹ According to the World Bank.² China is following a gradualist strategy to reform by choosing a two-track methodology: continuing state control of existing enterprises while permitting growth of a new, nonstate sector largely outside government control. This strategy was possible because the inefficient state sector accounted for a relatively small share of the economy.

China's large and relatively poorer rural population continues to provide a powerful spurt to growth and employment creation in the private sector. In China, as in other countries making the transition to more open economies, the key policy concern is how to manage structural reform such that the flow of workers from unviable jobs to new ones is facilitated without raising short-term costs. Key issues in the reform process include timing, speed, design, the exchange rate, and the political economy where government, capital, and labor perceive a common interest and where the process and the actors within it are considered credible.³ The Shanghai RIBB addresses policy concerns regarding the reformation of the province's education and training system, the conceptualization of work, and the relationship among employers, schools, government, and youth.

¹ Report on China by Friedrich Ebert Stiftung, 1994.

² Workers in an Integrating World, World Development Report 1995, Oxford University Press. Published for the World Bank by the International Bank for Reconstruction and Development at the World Bank.

³ Ibid.

Founded in 1291, Shanghai covers a total area of 6,430 square kilometers and an urban area of 2,057 square kilometers. The total population of Shanghai is 18 million, of which 9.6 million live in the city of Shanghai. Many China watchers believe that Shanghai is poised to be the country's preeminent financial, commercial, and cultural center ("the Paris of the East"), as the city is located on China's mainland across the water from Hong Kong. Shanghai is considered one of China's most developed provinces. Basic education in China is the job of the provinces, or states. The province's education system calls for 6 years of basic school, 3 years of middle school, and 3 years of high school, followed by university studies. Most of the province's citizens complete the first 9 years of education. This fairly high level of general education should speed up the rate by which the dual system can be adopted.

Leadership and Accountability

Overcoming barriers to developing social partnerships. RIBB's agreement with the State of Shanghai is to develop an appropriate version of Germany's dual system by means of three primary strategies:

- Combine theory and practice to ensure maximum learning.
- Strengthen the role of enterprises so they can become partners.
- Assist in the transition to a market economy.

Employers as social partners. RIBB experts recognize that employing these strategies successfully requires the practices associated with a culture of "social partnership," in which employers, organized labor, schools, and trade and industry associations participate and finance the system to ensure the close connection between learning theory and practical training. Because of societal conditions in the country, RIBB and Shanghai policymakers will have to overcome significant barriers in developing social partnerships with employers. According to RIBB experts, Chinese employers have no history of participating in education and training and no incentives to participate in the development of the workforce. Moreover, employers are not in any way penalized for lack of participation, as labor is cheap and in plentiful supply.

Developing enabling legislation and incentives for the new system. RIBB assisted Chinese policymakers to develop incentives that will make more attractive for employers to participate in workforce development. These incentives will be legally sanctioned in China's new Vocational Education and Training Act of September 1996. While the law will apply to all of China it has to be ratified by each province. RIBB is making proposals on how to implement the Act in the province of Shanghai. The Vocational Education and Training Act is modeled after Germany's 1969 law which calls for employers to train and educate youth at their workplaces as well as in schools. However, "laws" in China do not have the same force as in most market economies of the West, and the law about to be passed contains "lots of

back doors” for employers to wiggle out of participating, according to Hans Günther Wagner, executive director of GTZ and consultant to Shanghai RIBB.⁴

⁴ Telephone interview with Hans Gunther Wagner, executive director of GTZ Shanghai *RIBB*.

Demand-Driven Design

RIBB develops pilot projects, tests them, and then helps them reach scale. RIBB is working closely with Shanghai policymakers and subject matter experts to:

- Develop a series of pilot projects in three occupational groups within 11 schools.
- Test the results and put in appropriate corrections.
- Bring pilots up to scale by developing a system.

RIBB identifies what skills are important for the future. RIBB is helping Chinese policymakers identify what occupations hold the most promising future in the international labor market. Through systematic research studies, experts are determining what occupations are needed and what shifts are likely to occur over the near to midterm future in demand for labor. Until now questions such as these have been largely ignored. Shanghai, like other more developed regions in China, has a dual labor market. Joint ventures with foreign companies in China place a premium on highly qualified labor, and wages for such jobs can pay up to 10 times what someone working in the other labor (local) market might earn. Newspapers list extensive notices advertising for highly skilled jobs, however, until now this phenomenon has been limited to international enterprises.

RIBB develops and provides comprehensive labor market information. The province's Education Commission has statistical information describing the educational performance of the system. However, no systematic information has been available about anticipated demand for labor in different occupations, such as is found in Germany. With the help of two German experts from BiBB (Bundesinstitut für Berufsbildung), Shanghai's government plans to publish the province's first Occupational Outlook Directory which will highlight important trends and developments in the province's economy and job outlook. This will be a marked departure from business as usual, as Chinese have for the last 50 years been placed in jobs by the government through what is called the "Fenpei" system (China's traditional system for workforce distribution where workers are assigned by the central state to perform one task for life).

Trainers are trained in Shanghai and in Germany. RIBB trains Chinese experts in a variety of ways. For example, the institute trains teachers as well as technical and other instructional staff in Shanghai. RIBB also sends individuals for 10 months' training to Germany where they study at the BiBB, the German employment office, schools, and universities. RIBB also supports the costs associated with short trips of 2 or 3 weeks on which Chinese leaders are taken to similar institutions in Germany. RIBB also works with the German institute in Singapore for technical and further training. German experts also come to Shanghai to train either for 4 years, or for 1 to 2 months.

Open Access

The dual system in German speaking countries tends to deposit its graduates at a higher “entry” level than most other systems, and is generally considered to prepare its participants for careers in the mid- to upper-levels of occupations). The modified system being developed in Shanghai aims to prepare youth with the skills they need to enter the local labor market which consists of higher skilled jobs with multi-nationals and those with usually lower skilled Chinese firms. Special emphasis, however, will be given to help young women enter the system and succeed within it.

Portability of Skills

Skills are broadly conceived and prepare people for a specific industry sector. As in Germany, the dual system being developed in Shanghai will help a young person “learn an occupation” by means of structured curricula and mentorship in workplaces and schools. Curricula are carefully worked out and cover a 3 year period. In the first year, a youth learn extensively about the entire industry sector in which his or her occupation is located. Thus, a mechanic will learn the basic skills required for virtually all types of mechanical work, including auto, industrial, aviation, and other applications. In year 2, the youth has an opportunity to specialize in two or three sub-branches of the mechanics industry, for example industrial mechanics, where he or she learns all about the various machine tools and how to maintain and repair them. In year three, the youth learns a particular “mechanic” job in the machine tool industry.

RIBB is trying to develop the concept of key qualifications, or core human interaction and planning skills. Unlike Germany or the U.S., Chinese experts have not identified “key qualifications,” or “SCANS skills” (as developed in the U.S. by the Secretary’s Commission on Achieving the Necessary Skills) such as ability to work in teams, leadership, interpersonal skills, knowing how to learn, prioritize, plan, and develop a project. In Shanghai, as in all of China, skills have until now been narrowly identified and codified, so that someone trained in the old style can do one thing extremely well, but that is all he or she can do. Working with Chinese partners, *RIBB* is now trying to “anchor” the idea of key qualifications in the culture, language, and practice of the region. Policymakers understand that this works directly against Confucian tradition and practice, yet they can see the effects of this way of thinking as large amounts of workers are dislocated (for example, from inefficient textile industries) and have no skills to apply to different jobs.

Continuous Improvement

Deliverables for each phase of technical assistance are carefully spelled out and determine further funding. GTZ uses a carefully worked out multidimensional planning matrix that describes the relationships between the elements of the “developmental hypothesis” of the RIBB program and the objective, content, goals, measurable indicators, insights, time frames, results, deliverables, and evaluation. These matrixes are multi-year. Each year the GTZ evaluates RIBB on how it has met its deliverables.

Public-Private Partnerships

Adapting the dual system for implementation in schools. Until recently, China has had no private sector. Under an economy in transition to a more open market system, new, private enterprises springing up alongside state-owned companies have no incentive or tradition to spur their participation in public-private partnerships. As a result, the principal partners for RIBB are the schools, the Ministry of Labor, and the Education Commission. Because education and training have been entirely school-based in Shanghai (as in the rest of China), RIBB is adapting the dual system model so that much of it can be carried out in schools and special workshops. In this it resembles SENATI (see the case study “Republic of Peru, SENATI”). This is a departure from the practices of the dual system in German speaking countries, where practical learning at the workplace is linked to academic learning in school. However, the principle of linking theory to practical training has already been accepted by policymakers and educators and is likely to be realized on a large scale as the system develops.

Overcoming barriers regarding conflicting standards for skills. The development of standards is highly problematic in Shanghai, as the province (and nation) has no social partners with whom standards could be developed. For example, the only trade unions are attached to the state-owned system which is slowly being dismantled. With the exception of some state-controlled employer groups there are no free-market employer associations. As a result, the only viable partner with whom standards could be developed are the schools. The province’s Ministry of Labor, although differing in scope and focus from similar ministries found in developed countries, defines norms and performance standards for the physical skills required in narrow job categories and does not include all jobs found in business. For example, standards codify how many beds an hour a chamberperson should be able to make, or how fast a specific part should be inserted. Standards developed by the Education Commission, on the other hand, govern the entire field of theoretical learning. As a result, theoretical content covers most of the subjects taught at vocational schools. There are no standards governing what skills and knowledge youth need to enter a broad occupational group. This poses an enormous challenge to the establishment of a dual system approach, as the standards enforced by the Ministry of Labor are fundamentally different from those built into the dual system where standards are used to test for how well someone is able to integrate a number of complex tasks. In Shanghai, as in other provinces, content standards are developed by an Education Commission. This commission develops the general curriculum for the province, however each school has considerable autonomy in developing its own curricula and setting up its own occupations in the vocational system.

Developing standards is a highly political process. The development of standards that cover both content and performance is in part a political task that will require a change in the practices of the Ministry of Labor and Education Commission. The RIBB has formed solid partnerships with both organizations so that the change process can occur as these stakeholders work together to develop the system. To date, the Labor Ministry has stayed out of the standards or criteria determined by multi-nationals operating in China. The RIBB will,

however, orient itself toward those standards as they call for higher skills. Another part of the political standard-setting process in which the RIBB plays a part is in the development of trade unions and employer associations. RIBB staff are only “advisors” in Shanghai. Without stakeholder agreement they are relatively powerless to develop the social partnerships on which mutually agreed upon standards rest.

Sustainable and Flexible Financing

The costs of *RIBB* and the dual system being developed are currently shared between the Chinese and the German governments through development aid. The sale of products is a minor source of financing. No information is available on the cost for each individual, as these costs are yet to be developed. The German government, through the GTZ, pays different amounts for the three institutes. The Shanghai RIBB has already received 10 million marks for two 3-year periods. It will receive another 3 million Marks for the last period, which starts in 1997. This largely supports the costs associated with bringing German experts to China, and Chinese experts to Germany, as well as tools, computers, networks, and various materials. The Government of Shanghai is matching this contribution in a variety of ways. As the new Vocational Education and Training act of Shanghai steps into effect over the coming years, one can expect that Chinese firms will start to pick up some of the costs associated with the dual system. The law *recommends* that firms be willing to train or, in the event they are not, to pay a proportional tax.

Replicability

Although the initial pilot agreement between GTZ and China is limited to developing three institutes based on the BiBB model, current plans are in the works to develop one or two similar Institutes in other provinces. A current question is whether to go next to more developed provinces such as Canton or to poor and largely rural provinces.

Economic and Social Impact

RIBB is changing the conceptualization of education, training, and employment in China. As RIBB works with Chinese counterparts to develop laws and new social partnerships among employers, schools, government, trade unions, and youth, it is transforming a several-thousand year-old tradition of what work means to an individual and society. This change is a necessary part of bringing Shanghai fully into the global economy.

Chinese policymakers believe the dual system will help them achieve economic growth. Given their choice of the dual system over others in the world, Chinese policymakers likely believe that it will help them achieve the economic growth they desire. The system prepares people so they have high-level skills in occupations that are in demand in the global economy. If *RIBB* and institutes in other provinces succeed in their missions of developing a dual system, they will have been instrumental in developing a means for China to become a world leader in quality and technical innovation.

Shanghai policymakers place special emphasis on increasing the skills of women and girls. As the system being developed by *RIBB* and Chinese policymakers and practitioners places a special emphasis on increasing the skills of women and girls, this will likely improve their status and earning power in Chinese society. According to interviews with a representative from the Shanghai *RIBB*, many women in Shanghai can be found in leadership positions, such as superintendents of schools and regional enterprises. However, as in most countries throughout the world, no women are found in the highest-level leadership positions such as those found in the Shanghai's Congress or top levels of government.

Environmental education and planning is emphasized in curricular materials. Environmental education and the implementation of environmental goals in curricula, training programs, and textbooks are highly emphasized by *RIBB*.

Developing the RIBB also encourages the transfer of technology among German technology, tools, and materials, and Chinese schools, trainers, and employers. Technology is being transferred through computers and computer networks, as well as through experts, various tools, and equipment imported by *RIBB*.

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REGION: Asia

Egypt
Social Fund for Development

Case Overview

The Social Fund for Development (SFD) is an initiative of the Egyptian government to identify, fund, and support community initiatives in workforce development and community development. In response to hardships created by a national program of economic readjustment that included substantial reductions in the public sector workforce and by the Gulf War, in the early 1990s the Egyptian government identified the need for a comprehensive initiative to generate productive work opportunities for poor and working Egyptians. This initiative was named the Social Fund for Development (SFD) and sought to draw on Egypt's traditions of entrepreneurship and community bonds to facilitate a new resurgence in community economic self-help.

SFD was created by presidential decree in 1991 as a government-administered comprehensive initiative. SFD works with nongovernmental organizations (NGOs) to design and implement a variety of projects that will directly improve infrastructure, create jobs, increase worker skills, strengthen community social services, support microenterprise, and assist workers in transition. SFD has three main objectives:

- To reduce poverty through supporting employment generation and community development.
- To mitigate the possible negative impact of the Economic Reform and Structural Adjustment Program (ERSAP).
- To provide assistance to the Gulf returnees.

Five programs were set up within SFD to achieve these objectives:

- Public Works Program (PWP) to support construction projects, especially labor-intensive works, to increase infrastructure and provide jobs.
- Community Development Program (CDP) including support for microenterprise and community based social services. Education and training make up 42 percent of CDP activities.
- Enterprise Development Program (EDP) to grow new and existing enterprises through access to credit and technical assistance.
- Labor Mobility Program (LMP) to assist the nearly 40 percent of public sector workers made redundant by restructuring to move into the private sector. LMP is currently being expanded to redeploying workers in private enterprise affected by trade liberalization and to helping small and medium-sized businesses improve their workers' skills. These new efforts will include an early retirement program, financial assistance to start new

businesses, and retraining. The main divisions of training will be marketing, maintenance, quality control, technical, and entrepreneurship skills.

- Institutional Development Program (IDP) to support the SFD secretariat and to monitor the SFD's effect on poverty.

NGOs, community organizations, and other groups apply to SFD for funding of specific projects under one of these programs. SFD then evaluates the proposals and funds projects that meet a series of criteria. NGOs design and implement the projects according to local needs and priorities, with SFD acting as a coordinating and assisting body.

A review of SFD's progress conducted by the Egyptian government in 1994 concluded that the SFD has been successful in meeting its goals during its first 3 years (1991-1993). A December 1995 World Bank staff evaluation found that the first 2 years of full operation (1993-1995) had brought considerable achievements. More than 86,000 temporary and 229,000 permanent jobs have been created. SFD projects have significantly improved public utilities through road building, water treatment and transport renovations, and increased sanitary facilities. Hundreds of clinics, schools, and youth centers have been refurbished. Some 8,369 individuals have received vocational training and 28 vocational workshops have been equipped. Loans have been made to as many as 27,000 entrepreneurs. See "Economic and Social Impact" for details.

Why This Case Was Selected

SFD was chosen because it is:

- Local-level NGO design and implementation with government support.
- A combination of microenterprise support and formal-sector training.
- Assistance and retraining to displaced public sector workers.
- A large scale government initiative.
- Autonomous.
- Flexible and responsive to local level needs using a participatory, self-help philosophy.
- Employing and refining a strong evaluation and monitoring system.
- Proven to have had substantial economic and social impact.

Background

In the early 1990s, falling oil prices and the Gulf War created difficult economic conditions in Egypt. To pull the country out of these difficulties, the government implemented ERSAP, a broad economic adjustment program, with the support of the World Bank and the International Monetary Fund.

Although ERSAP has been successful in stabilizing the economy, the problems of a high poverty rate and a high unemployment rate persist. According to the World Bank, between 20 and 30 percent of Egyptians live in poverty. The unemployment rate, adjusted for underemployment, is nearly 21 percent (1994). Eighty-five percent of the unemployed are

between 19 and 29 years of age, and most are recent graduates. Public sector employment rates are high; more than one in three Egyptians is employed by public sector (including the armed forces), which has led to high rates of redundancy. More than half of Egypt's gross domestic product (GDP) originates in the public sector according to the CIA database. This heavy reliance on the public sector and on public sector employment has created a heavy burden for Egypt and has been one of the major factors behind economic stagnation and rising unemployment. Yet, the CIA database notes that there is a shortage of skilled labor in Egypt, with 2.5 million Egyptians working abroad (1993). Coupling this with the high unemployment rate, there is a large pool of potential workers and a need for skilled ones that Egypt can use as a resource if it can properly train them.

SFD is a series of initiatives to remedy these problems by tapping the dynamism of Egypt's entrepreneurs and community organizations and helping them succeed in rebuilding their physical plant and their people's skills.

Leadership and Accountability

Autonomy and accountability in management. SFD was created by presidential decree and is an autonomous agency with a high degree of flexibility. Managerial autonomy in decision making, procurement, and disbursements was hailed by the World Bank as one of the major factors behind SFD's success. This independence frees SFD from bureaucratic structures that normally hold up evaluations and disbursements. The World Bank was impressed with the clearly delineated lines of responsibility and accountability in the administrative structure and the clear no-nonsense management style of the staff.

Involvement and commitment of government agencies ensures coordination. SFD reports directly to the President of Egypt, and is steered by the Board of Directors (chaired by the Prime Minister with eight ministers and seven private sector representatives). The presence of ministers ensures that duplication with other government projects does not happen and that projects meet government priorities. Private sector members evaluate projects and establishes all manuals and guidelines for projects. In this way, the priorities and funding are steered by those closest to the market and the demand for labor.

Demand-Driven Design

Local NGOs empowered to identify and address needs and solutions in their community. Working with NGOs, SFD identifies the major problems facing the poor and facing workers affected by restructuring. Because SFD relies on and assists local NGOs and communities in creating their own projects to meet local needs, projects directly reflect what is needed by Egyptians right now and empower NGOs and local communities to design and carry out their own solutions. Those who are being empowered to design and implement projects were traditionally disenfranchised; now they are helping to create a whole new dimension to social stability and reform.

The CDP was designed to finance income and employment generation activities and improvements in the delivery of essential services to poor communities. CDP has been able to mobilize the resources of local groups through a participatory approach that encourages them to undertake self-help activities to alleviate poverty (a dramatic departure from the traditional reliance of communities on the public sector to alleviate their problems). Community groups are involved in project selection and design, and over time have moved into financing projects themselves because they felt a sense of ownership over the work.

Curricula respond to the needs of the trainees. CDP has established an adult education program that teaches basic skills such as mathematics. These classes have enabled women to learn math and apply it to starting microenterprises that supplement family income. Communities in Upper Egypt have indicated that vocational training provided by CDP has been important in developing the skills of young people and has brought them increased employment opportunities.

Moves large numbers of redundant public sector workers into private sector employment. LMP focuses on stimulating demand for workers in the private sector and on retraining redundant public sector workers for work in the private sector. For example, in Alexandria Shipyard, LMP retrained redundant workers as certified welders at a cost of LE3,500¹ (approximately US\$1,015) for each worker and increased their productivity 300 percent. LMP has implemented 15 demand-led training projects through private sector and union-owned training facilities. The training institutions identify jobs and then used SFD funds to train workers for these jobs. Thus, the placement rate is 100 percent. These projects place about 2,000 unemployed graduates in permanent jobs (average training cost is LE1,500 (approximately US\$435) for each trainee).

Project selection criteria are market-driven. The selection criteria for funding a project are multifaceted, extensive, and tied heavily to expressed needs and demands of SFD, the private sector, and the local community. Some points of evaluation include level of community participation, plan for sustainability, clear target themes, conformity with national planning, rigor of implementation, potential to achieve objectives, and criteria specific to the activity being undertaken.

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The many projects of SFD are geared to the poor and the entrepreneur at both community and individual levels. SFD, as explained in the section “Public-Private Partnerships,” has taken great pains to bring in a diversity of communities and NGOs and to spread the net ever wider.

In addition, SFD targets women. Twenty-five percent of EDP loan beneficiaries are women, a higher percentage than in the general Egyptian entrepreneurship population.

¹ As of April 1996, LE1=US\$0.29

Continuous Improvement

Project monitoring is done through evaluating implementation, outcome, and target effectiveness analyses. Implementation progress tracks how well SFD is delivering goods and services through its projects. Outcomes are tracked to assess how well targets and objectives in a number of categories are being met. The output categories are periodically reviewed and adjusted to reflect current priorities. Currently, they are:

- Kilometers of potable water networks.
- Kilometers of rural roads improved.
- Number of health awareness campaigns.
- Number of people in adult literacy classes.
- Number of microenterprise loan recipients.
- Number of small entrepreneurs helped.
- Percentage of female among community development direct beneficiaries.
- Temporary jobs in person-years.
- Number of permanent jobs.

The targeting effectiveness monitoring system tracks which groups and individuals are benefiting from SFD monies and how well the allocation matches intended targets. This impact monitoring is done through surveys and assessments of the progress of beneficiaries.

The monitoring system is currently being upgraded through a new World Bank grant and will include pyramidal data collection and reporting on approval and disbursement indicators, sponsoring agencies maintaining records of outputs delivered and to whom (output and beneficiary profile data), and four-tiered sampling methodology to analyze newly gathered data. It is expected that a database will be maintained and that results will be reported in a matrix form to give an overall profile of SFD's progress.

SFD also prepares monthly progress reports by region and sector; these include:

- Subprojects presented, appraised, in execution, completed, and evaluated, including the number of projects and beneficiaries, amounts committed and disbursed, and average cost of each beneficiary by project.
- Sources of funds for each subproject.
- SFD staffing.
- Operating costs.

Independent information is provided by financial and technical audits.

Public-Private Partnerships

SFD executes projects in conjunction with government agencies, NGOs, and commercial banks. Partner agencies submit proposals to SFD; these in turn are then extensively

evaluated for harmony with regional priorities (set according to poverty and community demand), project-specific criteria, technical feasibility, and potential impact.

NGOs are the main partners with the government in SFD, managing more than 50 percent of funds approved for CDP subprojects and at least 40 percent of funds for EDP subprojects. NGOs provide the essential link to communities and are the conduit through which communities can articulate their concerns and needs to the government. The participating NGOs are diverse, from religious groups to the Egyptian Red Crescent to the Family Planning Association. Larger NGOs have now taken on a mentoring role to bring smaller groups into the partnership.

Sustainable Financing

Diversified donor funding sources are combined with government investment. In addition to government funding, donor interest in SFD has been very strong, likely because of its demonstrated efficiency and its explicit goals of helping the poor. Donors have included the European Union, Denmark, Germany, the Netherlands, the Arab Fund, the Kuwait Fund, China, India, and the World Bank. Total funding through June 30, 1995, was US\$444 million.

The SFD strives for self-sufficiency through fee for service. Some parts of SFD are moving toward self-sufficiency. For example, EDP expects that during the next few years it will begin to charge fees for its services to banks and entrepreneurs in order to cover its lending and administrative costs.

Economic and Social Impact

The World Bank Staff Appraisal Report included three vignettes that captured the economic and social effects of SFD. Two are presented below:

How the SFD Has an Impact on the Poor

“The small dusty village in Fayoum lies close to the edge of the cultivated area, where green gives way to desert. At the tail-end of a water distribution system running from a canal bringing Nile water, the village receives a lot of contaminated water which has already passed through other places. SFD helped residents to build a waste water treatment plant constructed with local materials. Labor accounted for over 50 percent of the cost. The villagers contributed almost 25 percent in cash. In the same village, the SFD helped develop a community center and runs a women’s adult literacy program. The literacy program has been helping young girls who have dropped out of school due to family financial pressures to learn reading, writing and arithmetic. In another part of Fayoum, a young businessman with support from SFD has created employment opportunities for 10 women by setting up a small

business to clean and repackage agriculture products. The businessman himself is not from the poorest group of residents but his employees are.”

Harnessing Egypt's Talent for Entrepreneurship

“Galal (name changed) leaves the shop area and, despite that he has lost a leg, goes rapidly up a set of steep stairs to his workshop. His small business in the market area of Aswan is thriving: he employs 10 people making clothing. This would have seemed an impossible dream when he joined the handicapped training program jointly offered by the SFD and the Ministry of Social Affairs. He completed his training and qualified for a small loan under the productive families subproject supported by SFD's community development program. His business continued to grow and he has expanded with a loan from a bank through SFD's enterprise development program. SFD support has helped this determined individual, and, through him, also his 10 employees.”

Progress has been made in a wide range of measures. In its first 3 years of full operation (1993-1995), SFD has achieved measurable results on its outcome targets. A snapshot of the many results shows over 86,000 temporary and 229,000 permanent jobs have been created, benefiting more than 8 million people directly and indirectly. Environmental infrastructure has been improved, including 18 new wastewater networks, 114 new artesian wells, and 417 kilometers of new roads. Hundreds of clinics, schools, and youth centers have been refurbished. Some 27,809 small capital loans have been made to families to increase their productivity. At least 39,000 new enterprises have been spawned.

A recent World Bank study found that SFD has created 50,000 to 70,000 jobs each year, which is almost 25 percent of annual nonagricultural jobs created. This was achieved without crowding out the private sector, but primarily by supporting small enterprises which previously had no access to credit from banks. This job creation happened with expenditures equivalent to only 0.2 percent of GDP, or about 6 percent of annual donor flows to Egypt. The World Bank reports that this job-creation cost compares favorably with other countries.

On a detailed level, individual components of SFD have show substantial success. CDP has established and equipped 28 vocational training workshops serving 8,369 individuals. Communities have requested continued provision of these vocational training services. CDP credit operations have provided access to capital to 27,657 individuals who would not have had access otherwise. LMP has moved slower than expected because of the slower level of privatization, but has still provided assistance to 3,000 workers including retraining and recertification. This number should rise to 10,000 by the end of 1996.

The SDF improves social stability. Other benefits of SFD have been realized and are expected to expand given new World Bank investment. Benefits are likely to include raising of incomes of a million people, creating significant social and economic infrastructure in poorer communities, stemming rural-urban migration by bringing opportunity to rural areas,

and empowering NGOs and local communities to submit and carry out their own projects according to local needs.

Contact Information

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Acknowledgments

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REGION: Asia

Ahmedabad, India
Self-Employed Women's Association

Case Overview

The Self-Employed Women's Association¹ (SEWA) is a registered trade union of self-employed women who have organized to improve their skills through training, press for protection of their rights, and further the acceptance of women's economic participation.

SEWA was founded in 1971 as an association within the Textile Labor Association (TLA), which was founded by Mahatma Gandhi, after a survey conducted to probe the complaints of women tailors against exploitation by contractors pointed out the problems of unorganized, self-employed women. In 1981, SEWA became independent with a mandate to support self-employed females who were essentially unprotected under labor laws, had few resources, lacked employment security, and were at the mercy of contractors, money lenders, and the police.

SEWA's objectives are to:

- Support women's self-employment through training, access to credit, cooperatives, and activism.
- Secure legal protections for women workers.
- Press for higher incomes and better working conditions.
- Increase the vocational, organizing, and articulation skills of its members.
- Act as a liaison between self-employed women and government agencies.

SEWA conducts a number of activities to support its self-employed female members. Activities include lobbying for better legal protections, creating training programs to upgrade vocational and management skills, starting cooperatives, providing access to credit, holding classes to inform women of their rights and survey their needs, and acting as a liaison with the government.

SEWA's members who benefit from these activities include women working in a wide variety of trades, such as agricultural laborers, handcart pullers, carpenters, vegetable

¹ Based on the case study "Training For Women in the Informal Sector: The Experience of the Self-Employed Women's Association (SEWA), Ahmedabad, India" by Usha Juman, published in *Training for Work In the Informal Sector*, Fred Fluitman, ed., International Labor Organization, 1989. Additional material was obtained from "Education and Training for the Informal Sector: India" by Keith D'Souza and Liza Thomas, published in *Education and Training for the Informal Sector*, Vol. 2: Country Studies, No. 11 (March, 1995), Overseas Development Administration.

vendors, and bidi rollers. Most of the women are middle-aged. Many are widows and the principal economic support for the household. All are self-employed and poor.

Why This Case Was Selected

SEWA was selected because it:

- Serves a population of the most disenfranchised.
- Uses a cooperative leadership model that draws from its membership.
- Focuses on developing all aspects of its membership, including economic, democratic participation, political awareness.
- Provides training in a variety of skills, both trade-specific and portable.
- Combines training and policy activities.
- Is flexible in its offerings and clearly identifies and meets the target population's needs on an ongoing basis.
- Takes a leadership role in changing the conception of the value of women's economic participation.
- Is a comprehensive combination of labor union, women's cooperative, pressure group, liaison, educator/trainer, and banker.

Background

The World Bank classifies India as a low-income country. According to the United Nations Educational, Social, and Cultural Organization (UNESCO), the primary school attendance rate hovers close to 100 percent and is 90 percent for women, but the primary pupil/teacher ratio is 63:1, one of the worst in the world. Secondary school attendance rate drops sharply and is 44 percent overall and 32 percent for women. The 1990 literacy rate in India was 46 percent overall according to UNESCO, but only 34 percent for women. These statistics paint the picture that many women are not receiving the basic education they need to be viable participants in the economy, including basic literacy and numeracy. SEWA attempts to provide this lacking foundation to its members, many of whom are illiterate, through its training and activism projects.

India has historically been a nation of strict social structures, and women have often suffered from oppression. Women face a variety of social barriers, including a history of female infanticide and the burden of dowry expenses. The women who comprise SEWA are invisible for a variety of reasons: they work in the informal sector, women's economic work is considered to be of little value, and they are easily taken advantage of for social and economic reasons. In addition, many are widowed or abandoned, a position with little social standing. Thus, the problem facing SEWA was how to improve the situation of this specific workforce. SEWA committed to making change through lobbying and group pressuring, as well as organizing and training, to bring about the recognition of these women as workers and then press for their rights and protections.

India's economy is a mixture of traditional village farming, larger-scale agriculture, handcrafts, modern industry, and support services. The 1995 CIA Factbook reports that a large share of the population, perhaps as much as 40 percent, is too poor to afford an adequate diet, and hundreds of millions are in desperate poverty. Yet, the Factbook also reports that production, trade, and investment reforms since 1991 have provided new opportunities for Indian businessmen and an estimated 100 to 200 million middle-class consumers. India is considered to have a strong entrepreneurial class to take advantage of these reforms. SEWA women are part of this entrepreneurial class and the types of support SEWA is providing can be a major factor in helping women take advantage of these new business opportunities and the burgeoning consumer sector to bring themselves and their families out of poverty.

Leadership and Accountability

A dual philosophy of equitable legal protections and economic access. The philosophy underlying SEWA's mandate to promote women's self-employment is simple: women deserve the same legal protections as other workers and the same respect for their economic activity. In addition, SEWA feels women need support from one another and freedom from middleman exploitation through access to materials and capital. Finally, SEWA sees skills improvement at the core of creating high quality products that bring in cash sales and creating self-sufficient traders. SEWA realizes that it should act as a conduit for its members to have access to the materials, training, and support they need to be productive and successful members of society.

Drawing leadership from membership. SEWA members elect their leadership. Every 3 years a representative council is elected. This council in turn elects a 25-member executive committee. SEWA's president is elected from the trade group that has the largest membership. By choosing women to lead them from their ranks, SEWA ensures that the leadership is not only connected to the members' needs and concerns, but that they are people who have experienced firsthand the conditions and challenges self-employed, poor Indian women face.

Social and economic activism start at the top. SEWA organizes its members to press for higher incomes and better working conditions. SEWA defends its members against police harassment and exploitation by middlemen. In addition, it provides support through a women's bank, a skills training program, a social security scheme, and production and marketing cooperatives. SEWA and its members are accountable for their successes and failures. If they don't do well and adapt to change, neither survives.

SEWA's leadership treads where others fear to go. For example, on the basis of a survey of women in 15 villages in the Debdholera region, SEWA identified women who were already involved in activities such as spinning, dyeing, and cleaning raw wool. Even though weaving was traditionally considered a man's job and women were only allowed to help in pre-weaving preparation, SEWA decided to offer training to help women develop skills in

weaving and pottery making. SEWA overcame initial barriers such as men refusing to train the women in weaving and was able to start 10 weaving centers within a year.

Demand-Driven Design

In this case, the self-employed women compose the demand side of the equation. SEWA conducts industry-specific groups of women to discuss the problems they are facing and how to collectively solve them. SEWA designs its activities and provides training to serve these needs and upgrade skills and thus the quality of products to better meet market demand.

SEWA concretely serves the needs of its members in appropriate ways:

1. *Ongoing process to strengthen members.* By organizing and lobbying for the long haul, SEWA looks to develop the capacity of its members for confidence, leadership, and awareness of their socioeconomic environment. SEWA conducts classes to teach its women what their rights are, how to organize themselves, and how to press for enforcement of their rights.
2. *Working at multiple levels.* Local SEWA officials go directly to the members and assist them in arriving at solutions to the specific problems they face, often within trade groups. At the intermediate level, SEWA works with implementing agencies (usually government) to help members gain access to existing services (such as banking, market space, health care, and insurance). At the international level, SEWA works to stimulate an understanding among organizations of the role they can play in supporting its work.
3. *Focus on developing human resources.* SEWA works actively to develop all aspects of its membership (and human resource) base through training in two arenas: organizing workers and training for income generation. In organizing workers, SEWA runs classes to raise awareness of women concerning their rights as workers and the steps they can take to frame laws and press for legislation and its enforcement. In income-generation training, SEWA conducts programs in specific technical, vocational, and management skills to improve productivity and income, from account-keeping to choosing quality materials to innovating crafting techniques. The combination of these two approaches creates a type of holistic development that develops the economic, social, and civic capacities of women.
4. *Employment of appropriate training methodologies.* Because most of the women cannot read or write, video is an important training medium. SEWA has worked to adapt training methodologies to the target group, expressing often complex legal and ethical points in ways that women can easily understand and act upon. This often involves the employment of analogy, repetition, and short duration. For example, the women cannot be absent from the home for long, hence training is conducted in short bursts and they are usually remunerated for lost work time. Learning is task-oriented and takes place through doing because most of the women have had little formal education and are not comfortable or familiar with a classroom environment. In addition, training relates

directly to the women's experience and the problems they encounter, and is often led by other members.

5. *Bringing women together in training camps.* All training is organized in camps, thereby bringing women who are often isolated in the home together to share their problems and identify common solutions. Women work with facilitators to strengthen their verbal and problem-solving skills, by role-playing their responses to questions such as "How will you organize a demonstration to press for freer access to market space?" and "What will you say when you come before the labor commission about your complaint?" Vocational training also takes place in groups to foster a sense of cooperation and join resources to improve everyone's situations.
6. *Starting cooperatives that pool resources and talents.* Milk societies were monopolized by men and the upper castes when in 1978 SEWA started a dairy cooperative for women. SEWA helps women form the cooperative and provides them with technical help, management skills, training, access to working capital, and linkages to large cooperative movements. The cooperatives then become self-sufficient. Currently, SEWA sponsors more than 60 cooperatives.
7. *Providing access to credit.* The problems women face in obtaining finances for their enterprises prompted SEWA to start a bank with membership dues money. The bank provides loans to members, a conduit for national banks to help small clients, safe custody for members' cash, training in banking to members, and technical help in marketing goods, production, and sales services.

Open Access

SEWA works with a specific population: self-employed women. For that population SEWA is accessible, as membership fees are low and benefits numerous. Membership fees are low to ensure that women can join, but are required so that women must make a clear and articulated financial and personal commitment to the union.

Continuous Improvement

Research in members' needs leads to program improvements. To formulate its training activities, SEWA always conducts research and surveys in the target population to find out what specific problems are being encountered. For example, SEWA found that the biggest issues among bamboo workers were access to raw materials (middlemen charged outrageous prices and were the only source) and storage of large and bulky raw materials that had to be kept high above ground during monsoons. To complicate matters, designs were crude and markets limited to the low income. SEWA then designed solutions based on this research, including a skills upgrading course to elevate crafts and product quality and thereby open up higher-end markets. SEWA is constantly reviewing its offerings and changing to meet new needs that it finds in its member populations.

Practical indicators of quality provide daily “reality checks.” The indicators of success and failure in SEWA's training and banking activities are quite practical. The activities must help women increase their incomes, skills, and economic standing. In other business matters, success is achieved by enforcing legal protections, decreasing the stranglehold of middlemen and police, and increasing the status of women and the worth of their work.

Public-Private Partnerships

Employer and organization are one. In this case, women are the employers and their interests are the foundation upon which SEWA, the partner organization, is built. SEWA fights to help its members with whatever problems they have, ranging from stopping police harassment of pushcart operators, or middleman exploitation by controlling the flow of raw materials, to improving basketweaving techniques.

Partnership with the government to enforce and extend legal protections. SEWA acts as a liaison between its members and the public sector, demanding enforcement of existing laws, helping generate new ones, and bringing the complaints of its members to the government.

Sustainable Financing

SEWA funds its activities through membership dues (Rs.5 annually for each member²) and TLA monies. SEWA has also been supported by international agencies, the state, and national bodies.

Replicability

In many parts of the world women are in similar economic and social situations. Many features of SEWA's collective model, including training methods, trade organizing groups, cooperatives, banks, and activist steps can be applicable to other regions where women and other minority and disadvantaged groups are looking to empower themselves and learn a variety of skills to improve their lives.

Economic and Social Impact

Strength in number: training and microenterprise. In 1992, SEWA was working in 101 villages in the Ahmedabad district, including with 95 self-managed savings and credit groups and more than 60 sponsored cooperatives. In 1992, SEWA had 41,887 members (all of whom pay to belong) and seven trade committees for specific occupations. As of 1992, SEWA had conducted training for 8,650 women in a wide range of trades. SEWA's employment training activities have spread beyond Ahmedabad.

Advances in the enforcement of legal protections. SEWA has directly achieved a number of legal protections for women, such as getting vending declared a fundamental right by the

² US\$1=31.374 Indian rupees (Rs) in January of 1995.

Supreme Court and thus freeing women from police harassment and allowing them to eventually earn a hawker's license. In addition, innumerable intercessions and negotiations with government agencies and others have improved women's access to services. Finally, SEWA's work has also changed some attitudes toward women and women's productive work, and has broken down traditional barriers.

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REGION: Asia

Malaysia
Penang Skills Development Centre

Case Overview

The Penang Skills Development Center (PSDC) is an industry-led training center for the manufacturing industry in northern Malaysia. In September 1987, the American Business Council met to discuss the skilled manpower shortage problem for the manufacturing sector in Penang. Subsequently, the then Chief Minister of Penang, YAB Datuk Lim Chong Eu, the state government, and the Penang Development Corporation initiated a series of meetings with the CEOs of major manufacturing companies to discuss the establishment of a contemporaneous skilled manpower training center in Penang. On April 12, 1989, a Protem Management Council was elected for the Penang Skills Development Centre, a nonprofit organization, and it held its first meeting on May 3, 1989. The council obtained the support of 24 companies which agreed to become founding members of PSDC. PSDC offered its first 16 courses in 1989 with 309 participants. PSDC continues to serve workers, mostly from the northern part of Malaysia, with nearly 60 employer members and more than 250 courses and 4,400 trainees in the last year alone. Many multinational corporations participate in PSDC, such as Advanced Micro Devices, Hewlett Packard, Intel Technology, Motorola, National Semiconductors, and Sony Electronics.

PSDC's short-term objectives are to:

- Meet the immediate training needs of PSDC's members.
- Establish a mechanism to coordinate and utilize resources available from industry and institutions.
- Position PSDC to be the leading training institution in Penang and to be self-sufficient financially.
- Work closely with the state and federal governments on the implementation of the Human Resource Development Fund.

In the long-term, PSDC is committed to:

- Providing pre-employment training for school leavers.
- Promoting vocational and technical careers.
- Positioning itself as a leading training institution in the Northern region and establishing strategic alliances with other training organizations.

PSDC has three main activities. It offers courses for workers to continually upgrade their skill level to keep pace with technological progress in factory automation and manufacturing processes. The instruction offered in these courses raises the educational level of the existing

workforce to prepare its members for the needs of the factory of the future. In addition, PSDC provides pre-employment training to prepare the future workforce for occupational competence. Finally, PSDC provides training consulting services to interested firms and organizations.

PSDC has steadily increased enrollment rates and the number of offered courses over its seven years of operation. Placement rates for graduates are 100 percent and there is a demonstrated increase in worker income after training. PSDC has established that considerable technology transfer and training transfer (student to other workers) has occurred from its activities.

Why This Case Was Selected

PSDC was chosen as a case study because it is:

- Industry-led.
- Sustainable and self-financed.
- Strong in technology transfer.
- Preparing both skilled and semiskilled workers for high technology employment.
- Using a portable, multi-skilled curriculum.

In addition, PSDC has shown measurable results and been successfully replicated.

Background

Malaysia began its life as a federation in 1948. In 1957, the Federation of Malaysia became an independent state with its own constitution. By 1963, the Federation of Malaysia included Malaya, Marawak, Sabah, and Singapore, the latter of which became independent in 1965. By 1980, labor statistics showed that income distribution was still widely unequal, but that some progress had been made toward equalizing economic opportunities. Underemployment and unemployment were considerably higher for the country's Malays than for Chinese or Indians, and Malay women were 75 percent more likely to be unemployed than men.¹ The 1995 CIA World FactBook reports that "the Malaysian economy, a mixture of private enterprise and a soundly managed public sector, has posted a remarkable record of 9 percent average annual growth in 1988-1994." The official growth target for 1995 is 8.5 percent. This growth has resulted in a substantial reduction in poverty and a marked rise in real wages. Manufactured goods exports have expanded rapidly, and foreign investors have continued to commit large sums in the economy. Unemployment is a low 2.9 percent. The PSDC effort is part of the workforce development and industrial expansion investment that has led to Malaysia's extraordinary economic growth.

¹ Frederica M. Bunge, *Malaysia: A Country Study*. Washington, D.C.: The American University, 1985.

Leadership and Accountability

Joint leadership between the public and private sector. From PSDC's mission statement: "With the rapid development of the manufacturing sector in Penang and the northern region, the state is faced with new challenges in human resources development. There is increased demand for skilled and trained workforce to meet the stringent requirements of industry. PSDC takes cognizance that human resource development for industry must be jointly undertaken by the public and private sectors working in tandem."

Using resources effectively. PSDC exists to facilitate effective utilization of resources among manufacturing and service industries by providing training and educational programs in support of operational requirements, and to keep abreast of technological progress. Its vision is to establish Penang and the northern region of Malaysia as a major manufacturing center in the Asia Pacific. PSDC is a nonprofit organization that serves industry and is led by members who come from industry.

Industry is accountable. Drawn from industry, the accountable persons include the director and staff, who report to the board. Although PSDC has been making a profit since its first course, PSDC feels financial success is not as important as whether PSDC's programs provide adequate support to industry.

Demand-Driven Design

Heavy involvement of industry at all levels. PSDC was Malaysia's first industry-led training institution. Industry, through membership on PSDC's Management Council, determines the training offered at PSDC and jointly funds it. Thus, the courses and their content directly reflect industry's needs in northern Malaysia. In addition, many PSDC members are multinational firms. Students are trained on the most up-to-date equipment. Members, who are also customers, ensure that PSDC remains true to its mission and vision.

Trainers from industry keep education current. Furthermore, PSDC trainers often come from industry, bringing direct, up-to-date knowledge and experience. They are evaluated by students at the end of their courses. In addition, certain trainers are evaluated by BTEC, the certifying body that evaluates trainers for the Diploma in the Engineering program. This ensures that instructors are both engaging and technically correct.

All stakeholders are invested. All stakeholders have some investment, and thus some interest, in PSDC. Students pay course fees or receive industry sponsorship. Member employers provide equipment, supplies, trainers, and instructional input. Nonmember employers provide equipment and supplies.

Open Access

Diverse population enrolled. Most PSDC participants are less than 30 years old and fall into a middle income level RM900 to RM1500 a month (US\$360 to US\$600). Between June 1993 and March 1996, the ethnic breakdown of 9,677 students indicated 29 percent Malays, 59 percent Chinese, 11 percent Indian, and 1 percent of other ethnic backgrounds. Of these participants, 68 percent were male and 32 percent were female.

Encouraging lifelong learning with programs for skilled workers. PSDC draws from different populations and targets no particular group(s). The majority of the trainees come from industry and are either employer sponsored or self-paid. These skilled workers attend PSDC to update their skills to stay current with the latest technology.

Preparing semi-skilled school-leavers for employment. The next major group (about 20 percent of trainees) are pre-employment school leavers. These semiskilled workers are able to get the training they need to become fully versatile and fluent with the latest technology. This group eventually becomes employed after acquiring the necessary skills.

Portability of Skills

Preparing a multi-skilled, flexible worker. PSDC focuses on vocational and technical skills and strongly believes that the key to success of Malaysia's industry and its workers is to train a workforce to be multi-skilled and equipped to learn and change throughout the life cycle. PSDC and other initiatives work together to provide training and education opportunities for career advancement.

Needs analysis keeps up with emerging skills requirements. Once a year, PSDC holds a conference of its members to look at future trends and training needs. A training needs analysis is conducted and used to prepare a training calendar which is presented to the training committee, and ultimately, to the management council for final approval. The presence of so many different kinds of employers in PSDC's consortium ensures that skills in courses will be applicable to different types of work.

Continuous Improvement

The industry members who are part of PSDC assess the quality of the centre's performance by two criteria: first, by the student evaluations at the end of each course; second, by the performance of member firms' employees. The performance is assessed by means of pre- and post-training evaluations. The demand for the centre's courses is another indirect measure of its performance, as is the continued participation of member companies.

Public-Private Partnerships

Employers commit on a number of levels in anticipation of clear benefits. Employers are often members of PSDC and are, accordingly, highly invested in its success. Members pay a one-time fee to join PSDC. Full members pay RM20,000 (approx. US\$8,000). They may also supply equipment, supplies, and course instructors. Nonmember employers may also provide equipment and supplies. Member companies provide input into PSDC course offerings based on their projected needs. For their investment in PSDC, employers receive a guaranteed pool of skilled workers that they know will have up-to-date knowledge about the latest technology and techniques and will quickly integrate into their work environments.

Wide range of industries involved. The types of PSDC member companies give some indication of the range of industries that participate in PSDC: Agriculture (1 member), Consulting (2 members), Electronics (27 members), Engineering (10 members), Haulage (1 member), Medical (3 members), Packaging (1 member), Plastic (2 members), Semiconductors (9 members), and Textile (2 members).

Government also commits to success. Despite heavy employer involvement, PSDC remains a public-private partnership. The government provides PSDC facility and some operating funds.

Sustainable Financing

Self-financing through fees and fiscal management. PSDC is primarily self-financing (through course and member fees) with some government support. The facility is owned by the government, and PSDC can seek special funding from the government. Government provides some operating funds. Government and industry provide lecturers. Industry provides equipment and supplies.

PSDC's operating budget, which includes facilities maintenance and staff salaries, is not less than RM150,000 a month (US\$60,000). The government contributes approx. RM10,000 (US\$4,000). The remainder is obtained from course fees. PSDC has collected RM2.1 million (US\$840,000) in fees from courses and spent RM1.6 million (US\$640,000) for expenses associated with those courses. Cost for each trainee varies depending on the type of study. It begins at RM2.50 an hour (US\$1.00) for each person in technical programs and runs less for those in non-technical programs. Expensive programs may be RM6,000 (US\$2,400) a year for each of 3 years. Depending on the demand by industry, certain consultants from the United States may be as high as US\$3,000 a day. The operating budget does not include capital investment or cost of programs, which vary year to year.

Replicability

PSDC has been replicated in 11 other Malaysian states. In addition, the concept has been exported to Mauritius, Mexico, and Thailand. It is considered a strong model for demand-driven (industry) training that is focused and cost-effective.

Economic and Social Impact

High enrollment, graduation, and placement rates. Graduation/completion rates are approximately 95 percent. All graduates get jobs. Standard of living differences vary by program. For instance, a basic machining course (1 year of training) would raise a worker's income from RM700 (US\$280) to RM1000 (US\$400). An advanced machining course (an additional 6 months of training) would raise a worker's income to RM1300 (US\$520).

The level of PSDC activity has grown steadily since its inception. PSDC has offered:

Year	Number of Courses	Number of Participants
1989	16	307
1990	61	714
1991	104	1,572
1992	237	3,771
1993	164	2,402
1994	220	3,679
1995	225	4,408

Besides vocational skills, students are introduced to environmental practices such as waste management as applicable to their fields of study. In Malaysia, occupational health and safety laws deal with and help settle environmental issues.

Technology and technology transfer play an important role in PSDC training. Current technologies are taught at PSDC using the most up-to-date equipment available from industry. PSDC is able to keep up with the rapidly changing technology through its partnership with industry in the provision of equipment, information, and expertise.

Through PSDC, technology transfer occurs from multinational members to local companies and from local companies to smaller local companies. Members who are trained at PSDC in the latest technology bring that knowledge to their previous or new workplaces, thus spreading it to firms of all sizes. In addition, PSDC is developing a Center of Excellence for the purpose of growing and accelerating technology transfer.

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Region: Asia

**Manila, Philippines
Integrated Recruitment,
Training, and Placement Program**

Case Overview

The Integrated Recruitment, Training, and Placement Program (IRTP) educates and trains each year approximately 250 poor urban youth 18 years or older in the Makati district of Manila (and other areas in the Philippines) by placing them for three months in a regional vocational-technical education center and for a subsequent three or more months with employers. The purpose of the program is to help youth acquire the basic skills they need to escape poverty. The IRTP is integrated because it provides a range of support services to youth, such as transportation, counseling, and scholarships.

The IRTP program was developed in 1991 by the Ayala Foundation to promote the socioeconomic development of Manila's poor youth, 42 percent of whom drop out of high school. Of those that do graduate, 80 percent do not seek higher education because they need to find work or vocational-technical training to survive. Youth in the program include out-of-school women, the unskilled, and those who are somewhat disabled. Recent migrants to the squatter settlements of the Makati area, Manila's financial district, still live a way of life based on nineteenth century agricultural subsistence. In the light of the skills requirements for the twenty-first century, how can these relatively new urban poor share in the region's economic growth without being left behind?

The Ayala Foundation is funded by the Ayala Corporation, one of the Philippines' major developers. Foundation staff developed an integrated method which links scholarships, skills training, placement, and community development into one comprehensive program of support. From its inception in 1991 to 1995, the foundation has trained 946 out-of-school youth (of which 122 are women) in short courses and then placed them with various partner companies, where they work alongside welders, heavy equipment mechanics, auto painters, and shoemakers to help ensure that the skills youth gain match those needed in the workplaces of the region. By matching demand and supply in Greater Manila's labor market, the IRTP aims to ensure the immediate and full employment of all the trainees and the economic growth of the region. Although the program began in metropolitan Manila, it has since branched to Region 4 (the Laguna area) and the Calabar Zone. The latter is a group of provinces which constitute the fastest-growing industrial zone in the Philippines. The foundation is also starting the program in other areas of the Philippines, including the Visayas and Mindanao islands.

The objectives of the IRTP are to:

- Assist poor, urban youth to acquire skills they need to be employable in the region and escape poverty.
- Stimulate economic growth in the region by increasing the ability of poor youth to access good jobs.
- Develop a local labor market by building social partnerships among employers, employer associations, organized labor, schools, and government.
- Hold the social partners (and the foundation) accountable for doing their part in preparing youth.
- Develop and provide incentives to increase employer participation in the program.
- Provide youth with other needed services that will enable them to participate in and complete the training program.
- Act as a catalyst in stimulating government to improve the quality of vocational and technical education in the area.

Several features of the IRTP make it a unique program. As one of the country's leading employers, the Ayala Corporation has pledged its foundation to help the region's economic growth. To help the labor market function, the foundation brokers agreements among employers, training providers, NGOs, and community agencies to work together to reach consensus on what each will do to make an integrated program work. Once it has obtained memoranda of agreements (MOAs) from the various "social partners," the foundation provides the necessary supports, such as transportation, training stipends, and help with housing. At the same time, the foundation establishes a training fund, into which participating employers pay a percentage of apprentice wages. In this way, the foundation plans to make its programs self-sustaining.

During the last 5 years, the IRTP has managed a 95-percent placement rate of the 946 trained to date and put in measures of financial sustainability that should make the program independent of the foundation. It has begun to organize employers, industry associations, and other intermediaries into a network that can quickly respond to skill shortages which are often acute as many Filipinos leave the country to seek better wages abroad.

Background

With a current population of 65 million, the Philippines' population growth rate of 2.4 percent is now the highest in Southeast Asia. Despite 94 percent literacy rates¹ almost 50 percent of the population lives in poverty.² Although the Philippines is still largely agricultural, employment in this sector has steadily declined over the years as more and more rural workers seek brighter futures in urban settings. The National Capital Region (NCR), richest of the 14 distinct regions that make up the Philippines, is the favored destination of

¹ CIA World FactBook, World Wide Web, 1995.

² USAID country background information.

most rural migrants. The new arrivals are quickly absorbed into the ghettos of squatter colonies that surround region's 4 cities and 16 municipalities.

Mass poverty abounds in these squatter enclaves and unemployment hovers at 19 percent. Out-of-school youth in this sector account for the bulk of unemployed. Without marketable skills or resources to give them a head start, these youth are marginalized in the labor market. The few jobs open to them are often in factories, working in mind-deadening, repetitive tasks, with no social security benefits and wages below the minimum set by law. Large numbers of young women workers, preferred by light industries such as electronics, food processing, and garments, perform the lowest-paid jobs which offer little or no prospects for advancement.³

Misguided public policy has made matters worse. Instead of improving matters for poor Filipinos, a law stipulating that on-the-job training must last at least 6 months exacerbated the problem. Presumably to avoid paying higher wages for trained workers, most employers train workers (at lower wages) for 5 1/2 months, letting them go just before they could be considered "trained." This policy helps create the thousands of "casual," or migrant workers who generally live under desperately poor conditions in miles of tightly packed squatter enclaves which surround the skyscrapers of the Makati district.

A workers guild movement which contributed to the revolution in 1986, helped the country's new President Aquino mobilize guild representatives to join with the government and the private sector to do something about the lack of opportunities for most young Filipinos.

Globalization of work has also affected the Philippine economy, which had been largely closed to competition since World War II. Despite recent economic growth (5 percent in 1994), the benefits have not trickled down to the 50 percent of Filipinos who are desperately poor. Following a 15 years' average growth of 1.7 percent, most jobs are in the informal sector, where, according to a USAID report, there is chronic underemployment and low productivity.⁴ Most of the region's vocational-technical training centers are caught in a time warp, preparing students with skills that are usually out of date and not meaningful to companies in the area. Not surprisingly, almost all the companies within the industrial zone have their own in-company training centers, often importing workers from elsewhere.

The IRTP trains youth for better jobs with area employers, largely because youth are ineligible as they do not meet the "maturity" criteria generally required for unsecured loans required for small business. However, both government and NGO's are pursuing enterprise development for women in the informal sector. Consequently, employment opportunities, especially for out-of-school women, are limited to jobs as hired help of home-based, small-scale enterprises. According to an evaluation prepared for the ILO⁵, the conditions under

³ An Evaluation of the Ayala Foundation's Women-In-Non-Traditional Trades (WINT) Sub-Program under the Integrated Recruitment, Training, & Placement (IRTP) Concept. A Project Paper TK-622-43-95. Suzette Perez-Pido, Development Manager, Ayala Foundation, Inc., Philippines.

⁴ USAID country background information.

⁵ Suzette Perez-Pido.

which they work there are far worse than alternatives that await them in the formal sector if they had the necessary skills.

Leadership and Accountability

The Foundation holds itself accountable for helping poor youth escape poverty. Foundation staff emphasize that foremost in their minds is the tragedy of waste of human beings who have no access to work or developing marketable skills. Their underlying philosophy is to increase the quality of life of Filipinos such that they can work at levels above the minimum wage and escape the poverty cycle. They have designed the program so as to try to ensure that trainees have access to further skills development leading to a professional career path. This is accomplished by means of a three-way partnership with employers, training centers, and an intermediary—usually a local community-based organization. The Ayala Foundation serves as a catalyst only so that the program can sustain itself over time without the help of the foundation. To ensure that standards for training are being met, planning has begun in 1996 to certify graduates. The MOA spells out standards governing each of the parties and holds them accountable. Foundation staff recognize the difficulty of playing this role over the long haul. They are hopeful that working with the various partner organizations represented in the MOA will result in a structure that supports the partnership so that the foundation can use its resources to start similar ventures in other needy areas throughout the Philippines

Demand-Driven Design

The IRTTP improves the capacity of employers and government-financed training centers to prepare youth with the skills employers need. The IRTTP promotes the functioning of the local and regional labor market by attempting to eliminate the gap between skills needed by employers and those provided by training centers. Foundation staff do this by bringing employers together with schools, Ministry of Education officials, employer associations and organized labor to form regional workforce development councils.

The IRTTP uses a variety of strategies to achieve its purpose, such as:

1. Form a tripartite relationship between employer, trainees, and foundation (later to be replaced by the appropriate industry association).
2. Find a participating employer in need of workers with a particular skill and skill level and build its capacity to serve as a partner.
3. Hold the participating employer responsible for providing the foundation with information on current and projected skill requirements, make the final selection of candidates for training, provide the training center with technical information so that a tailor-made training curriculum could be developed; subsidize transportation costs of trainees; and agree to hire all trainees who meet the skill requirements at the end of the training period.
4. Make use of financial incentives and penalties for not complying with the agreements spelled out in the Memorandum of Agreement (MOA) If for some reason the company

- is unable to hire a trainee at the end of the training period, the employer agrees to reimburse the intermediary and foundation for all training costs within 3 months. The employer would also make automatic salary deductions from worker's wages to cover the cost of training according to a prearranged, easy repayment scheme; and agree to monitor workers and periodically assess who would be eligible for skills upgrading (career path).
5. Work with an existing training center which had qualified trainers and equipment. The participating training center is responsible for providing the facility, qualified trainers, training materials and equipment; conducting a trainability test for all trainee candidates and developing training curriculum suited to the needs of the specific company, in collaboration with company staff; including modules on "soft skills" such as values formation, team building, and proper work attitudes; billing the Ayala Foundation and the intermediary for the cost of training; providing midterm progress reports and final evaluations to intermediary and participating company; and issuing joint training Certifications of Completion for trainees who have satisfied the requirements and standards of the training program.
 6. Work with an intermediary, such as the Kabisig Workers Guild, to recruit trainees and select and support them in accordance with the company's requirements. The intermediary identifies and recruits potential trainees and takes into account the geographical location of the participating company, its human resources development standards, and other requirements; sends potential trainees to the training center for testing; prepares a short list of potential trainees for final selection; conducts program orientation, values training, team building, and proper work attitude sessions; maintains and makes available to industry a database of skilled, semiskilled, and unskilled workers; continuously monitors the progress of trainees; provides bridge financing for the cost of training up to P5,000 (approximately US\$125) for each trainee; provides any additional linkages with other organizations to assure the success of the program; and monitors the partners for compliance on issues such as worker safety and elimination of biases.
 7. Draw up an MOA which lists the duties and accountabilities of each of the partners.

The IRTP is developing information on labor market needs by working with various organizations. Information systems about labor market needs in the Philippines have yet to be developed. For example, the National Economic Development Authority is beginning to identify specific skill needs in growth industries. However, specific data are not generally available as regional manpower planning councils are still being set up and not yet in a position to gather, analyze, and disseminate the required data. To compensate, the Ayala Foundation is building a database of information on skill requirements and is working with chambers of commerce to develop a regional information system on labor market needs.

Finding skilled trainers is a challenge as many skilled Filipinos leave the country for better wages abroad. Many skilled individuals leave the Philippines for better opportunities abroad. As a result, trainers are in short supply, especially trainers who have been trained in countries where more advanced technologies and processes are used in industry and training centers. For the most part, trainers within training centers in the Philippines are not up to industry standards. On-the-job trainers appear to be adequate. However, there appears to be no reliable system for training of trainers.

The program focuses on deliverables by testing for competencies that can be measured. Trainees must pass a trade test for entry level. For some occupations there are certification requirements. Trainees must meet the minimum requirements and certification requirements where available, as in the case of welding. Trainees are also evaluated on the basis of their actual performance. The biggest gaps are punctuality, absenteeism, and other skills associated with work habits. This has resulted in the development of a behavior module on values formation. Following the training, the foundation provides consulting services to improve the quality of performance in the workplace. Because employers agree to train and then hire trainees (or else pay into the training fund), the skills youth gain can be considered a deliverable. In general, however, there are no industry skill standards or training certifications. Some of the companies interviewed, however, report they have obtained ISO 9000⁶ certification which would require training standards.

Open Access

The IRTP targets poor urban youth who can quickly gain the skills they need to gain good, entry level jobs in the region. Urban poor youth 18 years or older are targeted for entry-level positions that can quickly provide access to a career path and economic independence. Employers agree to provide this access once the youth is trained, or else reimburse the foundation some of its costs.

The IRTP attempts to eliminate gender bias. Although the MOA signed with employers and training centers requires the removal of biases that differentiate men and women, foundation staff report that some jobs, such those involving high degrees of manual dexterity in the electronics industry, for example, are more successfully performed by women.

Portability of Skills

Developing workplace skills, as well as technical, and life-long learning skills that are portable throughout the region is part of the program. Although the primary focus is on entry-level skills, the project's MOA requires the provision of a career ladder and upward mobility for participants. Participants learn about various "work" behaviors such as teamworking, punctuality, and personal presentation in courses developed by the Ayala Foundation. Because many of the participating companies have branches throughout the regions, the project enhances the development of portable skills. For example, the EEI Corporation in Manila reports that it "imports" workers from various regions to meet shortages. Lifelong learning is supported somewhat by means of the values formation training module, which is provided as part of the 6-month training program.

⁶ ISO 9000 is an organization which sets worldwide standards for products, processes, tools, and, in some cases, training. The organization is located in Geneva. It coordinates the work of approximately 100 member countries that agree to the norms set out in the standards. The United States is represented by the National Institute for Standards and Technology which is a part of the U.S. Department of Commerce.

The IRTP connects employers with another social partner, the schools, to improve their quality. IRTP links directly with vocational training schools within the region. For the most part, the curriculum and teacher skills in these schools is severely outdated. By contracting with such a school, the link with the employers and the Ayala Foundation influences the public education system. This influence is also being felt by the Ministries of Education and Labor with which the foundation works closely.

Continuous Improvement

Foundation staff continuously monitor informally the performance of the social partners to track the progress of youth in the program. To date there appears to be no formal checklist or systematic process for periodically tracking the progress of individual trainees in the training process. However, foundation staff use an internal evaluation and monitoring system by visiting participating companies once a month and conducting interviews with the employers and trainees. According to foundation staff, if the company is not providing training, the training is stopped. Foundation staff pay particular attention to health and safety issues, and require the company to sign their consent in the event the training is terminated.

Public-Private Partnerships

Why employers gain by participating. Interviews with several employers revealed experiences in which they trained workers only to lose them to other, often neighboring, countries where wages are higher. These employers appear concerned about the flight of skilled workers from the Philippines to other countries. Most of Philippines' zones of industrial growth are located where the Ayala Foundation has programs. Because IRTP makes it possible for employers to share the cost of training with the public sector and the employers' association, employers gain access to a pool of entry-level workers who have been personally recruited by the Ayala Foundation and partner NGOs. These workers are therefore considered less likely to leave the area.

What employers invest to participate. Employers invest by providing on-the-job training, as well as tools and equipment for the training. Employers participate in developing the training curriculum to be used, together with the training center. Employers agree to a minimum 2-year contract hire as opposed to the prevailing 5 1/2-month training placement. Through the MOA, employers also agree to remove sex-related bias and provide future skills upgrading and career development opportunities.

The public sector plays an important role. The public sector funds regional training centers which provide the first 3 months of training. Staff from the regional training center, municipality, and other public sector employees participate in the regional Economic Development Board which is becoming increasingly responsible and involved with programs such as IRTP. The public sector also participates in the regional Economic Development Boards and Authorities.

Sustainable Financing

Prepared by the Center for Workforce Development at Education Development Center, Inc., 1996.

IRTP is designed to be financially self-sustainable, however it is too new to be tested. IRTP is financed in four ways: by government (which provides training in a regional center), by the participating company, (which provides the tools, on-the-job training, and partial salaries) by the Ayala Foundation (which provides partial salaries and additional support mechanisms such as transportation), and by trainees. To ensure the project's sustainability, trainees are required to repay the foundation the amount spent for their training by the foundation through automatic salary deduction once he or she is employed. The amount repaid by trainees goes into a training fund which is managed by the foundation. The participation of three stakeholders-employer, training center, foundation (to be replaced by the employers' association) has laid the groundwork for sustainability. However, the project is too new to have been tested.

Cost per individual is approximately 5,000 to 7,000 Pesos (approximately US\$200 - 280) are required to train each individual.

Replicability

Assuming the presence of employers who wish to contribute something to their region or country and some public sector resources (schools, training centers) any other NGO could adopt Ayala's scheme to catalyzing skills development. IRTP is being replicated in several urban and less developed areas of the Philippines.

Economic and Social Impact

The IRTP contributes directly to the region's economic growth. Creating a path for poor youth to earn their way out of poverty by means of productive work is directly linked to economic growth for the region and country. As youth escape poverty, their lives improve, as does the performance of the companies and the regions in which they are located.

About 15 percent of trainees are women and girls. Employers who participate must agree to remove any bias that differentiates men and women participants. This is especially significant in the Philippines where women and girls are often negatively effected and trapped in domestic employment earning poverty wages.

The program appears to be cost-effective, given its very high reported rates of placement and promotion. Placement rates hover around 95 percent. According to the IRTP/Women in Non-Traditional Training (WINT) evaluation data, starting salaries of WINT trainees in electronics are US\$10 a month higher than those offered to general entry-level electronics workers (US\$162 a month compared with US\$152 a month). After six months, IRTP/WINT trainees earn \$193, while the contracts of the others have often been terminated. Salary after 2 years earned by IRTP/WINT graduates range between US\$320 - and US\$480, whereas those of the general entry level workers are still at minimum wage levels. Generally, after 2 years, IRTP graduates have escaped poverty income levels as they acquire further professional and technical skills.

Improving environmental practices. Although improving environmental practices is not a direct focus, the foundation reports that the training program includes various environmental components.

Regional Workforce Development Councils composed of multiple stakeholders help technology to transfer. Regional workforce development councils are being put in place, however, most of these are not yet fully up and running throughout the country. Foundation staff suggest that these new councils will play an important role in the transfer of technology from companies to training centers within and throughout the region.

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REGION: Asia

**Republic of Singapore
Singapore Skills Development Fund**

Case Overview

The Singapore Skills Development Fund is managed by Singapore's National Productivity and Skills Board. Its purpose is to increase the productivity of the country's workforce by making it less expensive for employers to train workers than to employ low or unskilled workers. The Fund supports up to 80 percent of the costs of employer-based training by taxing the payrolls of employers who employ workers earning less than S\$1,000 (approximately US\$700) a month. The Fund uses the proceeds from the payroll tax to finance employer based training throughout Singapore. The Fund generally supports only the training of workers *below* management levels, and processes some 45,000 completed company training initiatives per year.

The primary objectives of the Fund are to:

- Increase employers' demand for training and the supply of high skilled people.
- Raise the productivity of workers in Singapore by raising their skills.
- Protect the small island-nation from losing market share to surrounding countries with cheaper labor.
- Put the country on a high-skills, high-wages course that will match the standard of living of Switzerland by the year 2010.

The Fund was created through a Skills Development Levy Act. The purpose of the tax was to make it virtually impossible for employers not to invest in worker training. Initially the Act stipulated that 1 percent of payroll would be collected from employers for each worker earning less than S\$750 month (approx. US\$525). That amount was considered the line of demarcation between skilled and low or unskilled labor. To raise the level of skills even more, the Fund now requires employers to pay a 1-percent payroll tax for every worker earning less than S\$1,000 a year. These levies are used to finance employer-based training. Now under the direct leadership of the National Productivity and Skills Board, the Fund promotes training for any worker in Singapore by providing support to employers through sharing the cost of training. The Fund provides the highest levels of support to encourage training in skills considered most critical, such as quality and other high-performance, work-related skills. The Fund provides from 30 to 80 percent of course fees and minimizes employer transaction costs through on-line processing of applications, support, and evaluations.

Because employers had begun to use the Fund's resources to train their managers instead

of front line workers, in 1987 the Fund stopped all support for professional, postgraduate, senior management, and other training that was not considered directly relevant to work. In addition, the Fund does not provide support for entry-level skills training and considers this to be the task of the employer.

The Fund handles more than 45,000 applications and 45,000 claims each year for a total of 90,000 transactions. Because the state has pledged a zero employment growth, the Fund has to find ways to deliver services in an even more productive manner as the demand for training continues to skyrocket.

The Fund has achieved significant results since its inception in 1980:

- Singapore was rated for its technical skills by the Business Environment Risk Index (BERI) at level 12 in 1980 and at level 8 in 1995. The BERI rates countries for a number of factors to determine how attractive they are for foreign investment.
- In 1980, the number of training places covered by the Fund was 11,000. In 1995 it was 493,000.
- In 1988, training investment in terms of payroll was 1.8 percent; in 1995, 3.4 percent. The target is 4 percent. This figure is based on a benchmarking study of best company training investments in the world.
- The Fund reaches 63 percent of all companies with less than 10 workers, 85 percent of companies with less than 50 workers, 100 percent of companies with workforces between 99 and 500+ workers, for a total of 38,040 companies.
- Each year the Fund processes more than 90,000 requests and applications for training support.

Why This Case Was Selected

Perhaps the most unique feature of the Fund is that it is an “instrument of achieving the state’s economic goals while finding ways to remain relatively independent of the short term needs of capital and labor”.¹ In combination with other investments, the Fund has allowed Singapore to leapfrog several generations of industrialization in a time span of less than 30 years. This “defies conventional market approaches which suggest that training is best left to individual employers who would seek to maximize their own good through company specific training, or, to job seekers, who would seek to maximize the transferability of skills to ensure the widest portability of skills. In the Singapore model, training is seen as the most direct route to economic growth, which is the engine that drives the State’s role in society”² to higher economic growth.

Background

¹ David N. Ashton and Johnny Sung, *The State, Economic Development and Skill Formation: A New Asian Model?* Center for Labor Market Studies, University of Leicester, England, May 1994.

² Ibid.

After the ending of British, Japanese, and the second round of British Colonial rule, Singapore was concerned with ensuring its survival as an economy and as a nation in the face of possible threats from neighboring countries. With a population of 2.9 million, a land area three and a half times the size of Washington, D.C., and sizable ethnic divisions, Singapore's economic future was by no means assured when it achieved independence from the British in 1965. A strong, industrial economy was seen as a way to ensure political independence. To that end, Singapore launched the first phase of its development, seeking to attract investments from multinationals to establish a strong manufacturing base. By the late 1970s other parts of Southeast Asia offered equally low-cost sources of labor. Fearing that it would lose its competitive edge, Singapore's government decided to change its economic base and launched "the second industrial revolution" to reduce reliance on low wage, labor-intensive industry and replace it with capital-intensive, higher value-added industry.³ This strategy called for considerable investments to build physical capital (infrastructure, plants, equipment), attract foreign companies, and educate Singapore's youth. Initially, foreign multinational corporations would locate in Singapore because of the country's cheap labor and strong infrastructure. Policymakers, however, realized that this strategy left the country vulnerable when foreign companies found a more attractive place to locate.⁴ Since a low wage strategy would not sustain the economy over time, planners decided to invest in the human capacity of the workforce. This strategy has, according to the lead article in *Asia Week*, propelled the "tiny island-nation into the front ranks of the world's economies."⁵

By 1994, barely 30 years since its independence from British Colonial rule, Singapore's national products per capita matched that of the highly industrialized nations. Low inflation and unemployment rates, as well as high economic growth rates contribute to making this small nation one of the most rapidly advancing industrialized countries of the world.⁶ In January, the Organization for Economic Cooperation and Development (OECD) reclassified the republic as a "more advanced developing economy."⁷ Savings make up more than half of the gross domestic product (GDP); unemployment is low at 2.7 percent. Nearly 20 percent of all citizens own a personal computer, the average life span matches that of Americans, and the infant mortality rate is better than that of Switzerland.⁸

How was this growth achieved? Faced with continued competition from its Southeastern neighbors, Singapore in 1984 embarked upon what might be considered an impossible goal: to achieve the status and standard of living of the Swiss by the year 2010, that is, match the world's top industrial economies. Described in the document "The Next Leap,"⁹ this vision expanded on the idea of investing in high value-added goods and services while compensating for the small nation-state's population and territory by creating a "ring of

³ Ibid..

⁴ Ibid. Interview with Goh Chok Tong, Singapore's Premier, p. 42.

⁵ Jose Manuel Tesoro and Santha Ourjitham, Keeping Up The Pace. *Asia Week*, May 3, 1996.

⁶ Singapore's Economic Growth Rate in 1994 was 10.1 percent, and projected growth for 1995 was 7.5 percent to 8.5 percent. CIA World FactBook, World Wide Web, 1995.

⁷ David N. Ashton and Johnny Sung.

⁸ *Asia Week*.

⁹ Government of Singapore, 1991.

Singaporean companies” in surrounding Asian Pacific countries. To achieve these goals, the government had to act in a way that was unique among developing nations. Instead of eliminating barriers to the development of enterprises and job creation, a task which traditional market economics leaves up to employers, the government developed a long-term vision of the future i.e., that of matching the standard of living in Switzerland. This vision was used to determine the types of human resources the nation-state would need to achieve that end.

Which strategy would help Singaporeans “leapfrog” to Switzerland’s standard of living within a few decades? A target of annual growth in productivity of 2 percent was established, and policymakers sought to achieve this by raising the minimum wage by 10 percent.¹⁰ This helped to produce the very problem planners were trying to avoid, as multinationals began to look for cheaper locations. A better strategy was called for. Despite high unemployment, in 1979, the Singapore Skills Development Fund was launched by the Singapore National Wage Council with support from the United Nations Development Program.

Developing a National Skills Development Fund would require a society-wide commitment and broad consensus on the part of employers, workers, organized labor, and various government ministries to invest in upgrading the skills of Singapore’s current and future workforces. The social partnership underlying the Fund is represented in the membership of Singapore’s National Productivity and Skills Board which plays a catalytic role by bringing employers, trade unions, and government together. Interviews with the head of the employer association revealed that the strategy of taxing employers for using unproductive labor, pooling the revenues gained, and encouraging competition among firms to induce demand for higher quality training, has the full public support of the country’s employers and trade unions, who often argue among each other in private before reaching consensus. In their paper the “State, Economic Development and Skill Formation,”¹¹ authors Ashton and Sung argue that “Singapore’s investment in work-based skill formation is a departure from the experience of the older industrial societies such as the United Kingdom, Germany and Japan, and therefore represents a new model of skill formation.”

The success of the Skills Development Fund is perhaps even more remarkable given Singapore’s many ethnic divisions, religions, and cultures which are all contained in the same, small space. Chinese make up 76 percent, Malay 15 percent, Indians 6 percent. Public buildings of worship for Christians, Hindus, Sikhs, Taoists, and Confucians coexist throughout the city. Ninety-six percent of males and 86 percent of females are literate,¹² and more than half the population is in the labor force. (1994)¹³

However, as skills and productivity rise, so do wages and labor costs. This will cause some firms to move their production and service functions to surrounding countries where wages

¹⁰ This and other points suggested by David Finegold, RAND Corporation and Director of the Center for Organizational Effectiveness, University of Southern California.

¹¹ David N. Ashton and Johnny Sung.

¹² World Development Report, 1996.

¹³ CIA World FactBook, World Wide Web, 1995.

are lower. Singapore will be challenged to leap to the next level of development and become a post-industrial, knowledge-based economy. With a tiny pool of workers (total population of only 2.9 million), Singapore needs to find ways to increase its productive capacity to help its economy thrive over the long term. Singapore appears to have a two-pronged strategy in response to this challenge. First, it is enlarging its productive capacity by surrounding itself with a ring of companies in nearby countries and making training available through the Fund. Second, the National Productivity and Skills Board is once again benchmarking best practice around the world. This time researchers are finding out how leading-edge countries identify, develop, and use skill standards; nurture high performance work organizations; and encourage learning at work through formal and informal means. To move toward a nation of learning organizations, however, workers and supervisors have to be willing to take risks and to learn from mistakes they make. In that sense becoming a knowledge-based society may not be as easy for the country, in that Singapore's strengths—"its discipline and social cohesion—could stifle creativity and risk taking just when they are needed most. The question for Southeast Asia's most developed nation has become not only how it takes the next step—but where that step could lead it."¹⁴

¹⁴ *Asia Week*, p.38.

Leadership and Accountability

The Fund's mission and activities are embraced by stakeholders who know what's "at stake." For example:

- The drastic upgrading of skills is seen as key to Singapore's economic strategy and survival. This urgency helps to create a "training culture" in Singapore.
- The state, private sector, and organized labor share a common interest and agenda in the upgrading of skills. This agenda is reinforced by means of tripartite decision making and deliberations.
- The importance of positioning Singapore regionally with regard to other ASEAN (Association of Southeast Asian Nations) nations.

Important decisions are reached in private. Important decisions are reached among the stakeholders through consensus and behind the scenes, and are only announced after they have been accomplished. Because Singapore is such a small country, most leaders know each other personally and interact with each other in many social occasions as well as business settings.

Training must benefit workers, not managers. Eighty percent of training must benefit workers, not people in management positions. By 1986 some 80 percent of training funds were going into management training as employers neglected the training of workers who represent two-thirds of the workforce. The Fund quickly withdrew support of management training schemes.

Accountability and efficiency appear to be embedded throughout the Fund's management practices by:

- Leveraging resources effectively and providing a wide range of services for a low administrative cost. The Fund manages some 90,000 proposals and claims a year with a staff of 49 workers in three major divisions:
- Evaluation, which promotes training, develops new schemes, and processes applications from companies for training grants. Fund staff do not attempt to measure return on investment.
- Monitoring and disbursement, which makes payments to companies when the company applies for a grant, meets terms and conditions, submits claims to the Fund or uses training vouchers, and conducts checks on the companies that have received money from the Fund.
- Computerizing and delivering all Fund services on-line, electronically through "Skillsnet."
- Collecting of Funds which requires only 5 workers, as monitoring is done electronically through payroll records.

Demand-Driven Design

Training is closely linked to domestic and international market requirements. Singapore has an extensive network of industry training centers in which multinational companies share space and expertise with local firms. There are 16 such training centers, one for virtually every industrial sector. The Penang Skills Development Centre in Malaysia is considered by Singaporean experts a close copy of Singapore's centers. (For a detailed description of the Penang Centre, see the case study "Malaysia: Penang Skills Development Centre.")

The Fund favors training approaches which develop more portable workplace skills and reduce skill shortages. By favoring training schemes which develop the more portable, or generic workplace skills, the Fund seeks to close the gap between workers' current skills and those that are required in high-performance work organizations where a variety of quality processes predominate. There are shortages among engineers and certain lower-level workers, according to interviews. The shortage of engineers may be due to the fact that in Singapore, engineering has a bad image and people prefer to go into banking.¹⁵ There are also shortages in clerical staff and technicians.

The Fund encourages competition among firms for training to improve the quality of requests for training. Companies must submit a worker training plan with their proposal to the Fund and compete with each other for access to financial support. This process has enhanced the quality of proposals. The Fund publishes an extensive list of pamphlets to help firms find out what training is available, its effectiveness, and what they must do to get it.

Future skill requirements are identified through a clusters development strategy. Experts have identified core skills needed in each cluster. Of particular interest are precision engineering, factory automation, production design, broadcasting, and logistics. At present, several different agencies work on aspects of this problem. A national manpower plan that integrates the different agencies should be available by 1997. Moreover, Singapore conducts periodic benchmarking and other information gathering processes to find out what skills will be required in the future. The Fund taps industry expertise to develop and provide training programs, and is advised by a technical committee. The Fund also works with the Singapore Institute of Labor Studies, an arm of the country's trade unions.

The quality of trainers is carefully reviewed before they may train. Trainers are evaluated and trained based on participant evaluation, course content, quality of facilities, and the passing rate of students. Trainer quality is reviewed by the training providers and the technical committee which represents union, employers, and government. The Fund maintains a list of trainers in the country; they may be found in consulting firms, universities, training institutes, or commercial schools. In addition, the Productivity and Skills Board conducts training for the purpose of training through its Institute of Productivity Training. However, such training is not compulsory; employers appear to be free to select their own trainers, provided the training program is acceptable to the Fund.

¹⁵ Conversation with Deputy Administrator of the Fund.

Companies must be clear on what competencies they want workers to achieve, and each training proposal must have clear deliverables. To meet Fund approval, the training proposed must have clear outcomes and a method of evaluation. The training must be part of a company's annual Worker Training Plan which is submitted to the Fund. Trainees receive certificates at the end of each course. If they do not pass, they get no certificate.

Open Access

The Fund supports training for persons already employed, those who need retraining, and those unemployed. The Fund does not offer entry-level skills training because its managers and its board believe that is the task of employers. The Fund does not support training for professional or postgraduate training, or senior-level management courses. This is in response to the Fund's early years when employers used Fund resources almost exclusively for management training as opposed to improving the broad skills of workers. The Fund also does not support training for spiritual, cultural, and social enhancement, as these are not considered directly related to performance at work.

Most women participate in the workforce, however few can be found in senior management. The Fund appears to make no special provision for women and girls or other special segments of the population. Women fully participate in the workforce. However, as in most other countries, few women appear to be in senior management positions.

Portability of Skills

The Fund supports the development of skills that are portable among firms and regions. The Fund provides enhanced support for training schemes that focus on highly portable workplace skills, such as quality processes, teamwork, and related skills. The training infrastructure (inter-firm training centers, industry training centers) is such that the skills acquired are likely to be highly portable among firms and regions. Portability of skills is further supported as Singapore is host to a number of multinational corporations. Moreover, Singapore encourages its companies to locate overseas, in a "ring strategy" because the country's own labor force is small (1.7 million). Singapore increasingly depends on countries outside to survive. This regional strategy is executed through a special training scheme to bolster Singaporean firms outside the country. This further ensures that skills of workers are portable among surrounding countries.

Fund experts are benchmarking the best lifelong learning systems, however there is no connection between the Fund and public education system. The Fund is conducting an international benchmarking process to identify best practice in lifelong learning.

Continuous Improvement

The Fund monitors training quality. The Fund's evaluation activities are performed by its internal evaluation section, by the monitoring and disbursement section, and by senior staff members, as well as by the board of directors. Fund staff evaluate all training that they

support. Moreover, in reviewing the training plans, proposals of companies that apply to the Fund, and employer feedback, the Fund learns a great deal about training. This helps the Fund staff improve its own knowledge base. The Fund also provides employers with extensive materials on how to evaluate the effectiveness of training. However, staff interviews indicate that they and employers would like to have a more reliable means of determining and monitoring return on investment (ROI) because of increased training. (This finding is corroborated by a recent OECD report that calls for the development of new economic theories and models that could capture such returns.¹⁶)

The Fund uses the rate of demand for training as an indicator of successful performance. The Fund knows it is doing a good job if it receives many proposals. The Fund periodically reviews each training scheme to see if it matches the guidelines and conditions set out. One particular training scheme was dropped because employers felt a set of training activities was taking too long.

Public-Private Partnerships

Employers gain more by training than by hiring low or unskilled labor. Most employers stand to gain more than they lose by participating in the tax. According to Fund staff, Fund training activities as the cost of the tax on unskilled labor is less than the small costs associated with receiving training support. The Fund heavily subsidizes training received by companies (up to 80 to 90 percent).

Employers invest by taxing themselves on unproductive labor. Employers invest by contributing 1 percent of payroll on unproductive labor (workers earning less than S\$1,000 a month). They also have to pay some matching funds for the training. The amount depends on the type of training they have selected.

Stakeholders are represented within the Board of Directors. The Fund's Board of Directors includes the various stakeholders such as the employer association, union, and government. All of the stakeholders contribute to the Fund in some way. However, training is free of charge to workers who are receiving training.

The public sector plays a catalytic role. The public sector plays a catalytic role by taxing employers for using unproductive labor, pooling the revenues, and encouraging competition among firms to induce the development of high quality training activities.

Many strategies mutually reinforce the purpose of the Fund and the commitment of public-private stakeholders. For example:

- Using financial incentives where employers can win more by training than they lose by not training. In fact, the more employers train in this system, the more they gain. Even a small company that can only send one or two workers for training receives more in

¹⁶ "The Knowledge Based Economy," *OECD Observer*, June/July 1996.

training benefits from the Fund than it would be taxed for those two individuals if it did not train them.

- Speeding up technology transfer from multinationals to small and medium-sized enterprises (SMEs) by building joint training centers, creating partnerships, and developing teachware with major corporations such as AT&T, Anderson Consulting, Festo, IBM, Motorola, Phillips, Seiko Instruments, SIA, and Prima.
- Making majority investments in the building of 16 new training centers for each major sector of Singapore's economy, and using these to develop and conduct industry specific courses.
- Developing national training programs for workers whose basic language and mathematical skills need upgrading and more advanced courses to equip workers with flexible and adaptive skills for changing environments.
- Easing the cash flow problems of SMEs through training vouchers.
- Helping SMEs identify established and proven training programs, and providing a highly flexible delivery system (video, in-company, out of company).
- Providing on-the-job training for equipping workers in retailing and precision engineering.
- Assisting labor unions with upgrading skills of their members and labor union leaders.
- Continual environment scanning and benchmarking of best practices found in other countries and companies and then swiftly adapting new learnings to the home front.
- Making the system transparent, so employers know exactly what they can expect of the Fund, and how to obtain it.
- Developing national programs for mass training, such as videos for local and distance learning.
- Encouraging retraining of older workers.
- Assisting small and medium-sized enterprises to overcome barriers to training, such as cash flow, tight production scheduling, difficulty with paperwork, etc.
- Establishing partnerships with customers and suppliers to speed up transfer of learning.
- Establishing partnership with industry to tap their expertise to provide training for workers.
- Providing companies with financial assistance for capital as well as curriculum costs tied to training.

Sustainable Financing

Financing is flexible and can sustain itself over time. The Skills Development Fund is financed through a payroll tax levied on workers who are "unproductive," or earning less than S\$1,000 (US\$700) a month. These revenues go into a pool which is then made available to employers provided they qualify. The Training Levy Act stipulates that the employer tax can go up 4 percent in good years, such as in 1982, and in a recession down to 1 percent, such as from 1985 to 1986. The income ceiling can also be increased, as it was from S\$750 to S\$1,000. About S\$129 (US\$99) a year is spent on each individual.

Replicability

Although the staff suggest the Skills Development Fund is only replicable in small countries, it would seem that a payroll tax on less productive labor might be a promising strategy for a variety of countries and settings. For example, Malaysia has instituted a National Skills Training Fund. Moreover, a payroll tax for unproductive labor could be adopted by any number of countries whose employers use under- or low-skilled labor. As in Singapore, the revenues from such a tax could be used to provide training to the same companies, upgrading the skills of the workforce in the country. What is more difficult—perhaps impossible—to replicate is the agreement of employers, unions, and policymakers to forgo short-term gains in exchange for the long-term benefits associated with a higher skilled workforce.

Economic and Social Impact

The Fund promotes economic growth by making workers more productive. The Skills Development Fund promotes economic growth by advocating training that makes workers more efficient. This increases the domestic product, wages, and makes Singaporean goods and services more competitive in the international economy. Moreover, increased training will help the country become less dependent on foreign firms and therefore less vulnerable.

Special programs bring housewives into the labor market. Because Singapore has a virtual shortage of workers and a small workforce, women and girls are readily absorbed into the labor market. The Skills Development Fund has developed a special program to foster the introduction of housewives into the labor force.

Singaporean policymakers consider the Fund cost effective. In 1980, the Business Environmental Risk Index (BERI) rated Singapore twelfth in the world for its technical skills. By 1995 the rating had changed to eighth in the world. In 1980 the number of training places was 11,000; in 1995 the number was 493,300. In 1980 the training investment by employers was 1.8 percent of payroll; in 1994 it was 3.4 percent.

Better environmental practices will add to economic growth. The Fund is reportedly looking into how to promote sustainable environmental practices. In particular, the Fund would like to decrease the cost of maintaining environmental quality and decrease the amount of waste, a major cost factor.

Videos are used extensively to transfer skills to people in a variety of settings. The Fund spent more than S\$20 million to develop its “Fast Forward” video-based learning system, which includes curriculum and videos. The government provides the capital costs. Currently, the learning system includes programs such as “Easy Math,” “English,” and “Successful Supervision.” Companies purchase the videos which can be shown at work, home, or community centers. Furthermore, the Fund helps develop computerized instruction. All school children use computers. Although extensive technology transfer occurs in the various multi-form training centers, technology transfer is not the purpose of the Fund.

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Europe**Cases**

National Training Fund, Czech Republic

Building Trades Craft Union Training Consortium, Poland

Dual System, Germany

Retraining of the Military Program, Ukraine

Regional Profile

In international economics terms, Eastern Europe and the New Independent States (NIS) are considered misdeveloped rather than developing countries. The task in most of these countries is to find innovative ways to redirect national resources toward participatory political and economic systems.

The countries of Eastern Europe and the former Soviet Union suffered a steady reduction of their gross domestic product (GDP) after the breakup of the Soviet bloc. The countries of Eastern Europe all experienced falls in GDP in 1991, ranging from 9 percent in Poland to 17 percent in Bulgaria (ILO, 1995). The total gross national product (GNP) of 12 of the NIS also fell approximately 17 percent in 1994 (World Bank, 1995). In addition, there has been substantial job loss throughout the region. Between 1990 and 1993, the number of people registered as unemployed in Eastern Europe increased from 100,000 to over 4 million (ILO, 1995).

According to the World Labour Report, a number of factors have contributed to the decline of Eastern Europe's economy: the collapse of trade between Eastern bloc countries; the rise in energy prices as the NIS move toward world prices for oil; stricter macroeconomic measures needed to cope with the effect of price liberalization; and the overall general uncertainty associated with the economic transition.

This region is undergoing a tremendous amount of change. As a result of privatization initiatives, there have been significant increases in the proportions of labor and capital in the private sector. External conditions appear favorable, especially for the countries of Central and Eastern Europe and the Baltic States, which have recently acquired preferential access to the markets of the European Union. This provides both new opportunities for macroeconomic policies and reforms. The inflow of complementary capital will be important in generating growth, allowing processes of job creation and job elimination, and retraining of existing human capital.

In the financial sector, a critical mass of commercial bank privatization and systems for bank supervision in Central European countries are on the way. The number of institutions providing financing for mortgages and municipal infrastructure will expand. Functioning over-the-counter securities markets and stock exchanges will be established in Russia and in Central Europe by the end of 1996, and this will better mobilize domestic savings and international investment to raise capital for businesses (USAID, 1996).

The instruments of democracy and free speech are being put in place. In Russia, for example, independent television media will be well established and accessible to a large share of the population in 1997, and legislation and judicial training will also be in place by 1997 to promote judicial independence thereafter (USAID, 1995). In Central Europe, independent print media are already well developed, and free and fair electoral processes and parliamentary structures are well established. Judicial training and judges' associations will be strengthened to promote greater judicial system independence.

In addition, local government capabilities have been strengthened, especially fiscal management (revenue generation and budgeting), and transparent systems allowing procurement from the private sector. Local governments will be successfully lobbying for a fair share of central fiscal revenues and managing social services that have been decentralized to the local level, at least on a pilot basis.

The labor market and productive capacities face other strains. Early ages of retirement, poorly targeted welfare systems, and lack of modern distribution through a banking system make pension and welfare payments systems more costly than is now affordable. In Poland, Hungary, Slovakia, and Russia, new approaches are under development in order to have better targeting of benefit levels, and the modernizing and decentralizing of services to local governments to realize significant cost savings and eliminate non-essential services.

Acute areas of need are also easily identifiable. In Ukraine and many of the New Independent States, it is absolutely necessary to find alternatives to help ex-military personnel and members of their families adapt to civilian life and a market economy. In the Czech Republic and other Eastern European countries, there is a need for a pool of skilled managers, both in the public and private sectors, that can deal with issues related to housing, health care, protection of the environment and smooth economic

transition. In Poland, as in other Eastern European and NIS countries, workers need skills and knowledge to help them construct buildings that are structurally and environmentally sound. The Building Trades Craft Union Training Consortium project in which members of the U.S. Building and Construction Trades Department of the AFL-CIO volunteer their time and train their Polish counterparts in the latest construction technology, is an example of how organized labor can train and how the U.S. Department of Labor can finance Polish construction workers to establish technical expertise in Poland.

Relevance of the Compass to Workforce Development Toolkit to the Region

The privatization activities in East and Central Europe have been largely in the retail and services sectors and have often involved short-term leasing arrangements from the State. Transfer of the larger publicly owned enterprises has proved to be more difficult. The relative lack of progress with initial plans to privatize by sale to domestic and foreign agents, along with the continuous deterioration in the conditions of state enterprises, led several governments to turn to mass privatization with minimal restructuring of enterprises. In the absence of significant restructuring, privatization alone cannot solve the problems facing previously state-owned enterprises. Instead, mass privatization leaves the new owners and managers with the responsibility of implementing the reforms needed to make the privatized enterprises viable. According to the 1995 World Labour Report, all of these factors influence attitudes of managers and employers towards economic restructuring in enterprises. The Czech National Training Fund is one exemplary effort to train managers to effectively manage the mass privatized enterprises.

The effect of this transformation process on the labor market is evidenced by rapidly rising unemployment and withdrawal from the labor market. The shrinking of state enterprises has caused most of this unemployment. Other factors include large numbers of school leavers plus new entrants to the labor market. Most of the job losses have occurred in industry (around 2 million between 1990 and 1991). Other sizable declines have also occurred in the agriculture and construction sectors.

While employment in the state sector has fallen, there has been a rapid increase in the number of private sector jobs, either through the privatization of state industries or the establishment of new businesses. In Poland in 1992, employment in private shops and restaurants increased by approximately 450,000 and

employment in unincorporated businesses rose by 675,000. In Russia since 1994, the private sector employs more than half of the labor force (USAID, 1995).

An indication of the expansion of the private sector comes from the number of new enterprises registered. There has been a large increase in Hungary, where 37,000 limited liability and joint stock markets companies were created between 1989 and 1991. In Ukraine, 1500 medium and large enterprises and 16,000 small ones were privatized; in the Czech Republic, 130,000 state-owned enterprises were privatized through foreign investment (USAID, 1995).

The shedding of labor in transitional economies has also had a varied impact on older workers, women, minorities and the disabled. In all countries except for Hungary, the unemployment rates are higher for women (ILO, 1995). According to the 1995 World Labour Report, old prejudices and stereotypes are re-emerging in relation to hiring women and some minorities. Since many of the lay-offs involved workers close to retirement age, they have also found difficulties reintegrating into the workforce.

The young also appear to share a great portion of the unemployment burden. Youth unemployment rates are around 25 percent in Hungary, 60 percent in Bulgaria and 30 percent in the Czech Republic and Romania (ILO, 1995). It is important to mention that the figures indicated above may considerably understate the real rates, since in most Eastern European countries people without previous work experience are not entitled to unemployment compensation, and are therefore less likely to have registered as unemployed. There are also considerable regional variations in unemployment. The highest rates are generally in rural agricultural areas such as in western Poland and eastern Hungary, but also in mining areas such as the northern region of the Czech Republic. One project that attempts to deal with this widespread regional problem is the Building Trades Craft Union Training Consortium. Not only does the project train workers for private sector employment in construction and in skills to help them manage their own firms, it also helps fill a critical societal need--housing.

All of the four cases selected for this study are worth exploring because of the contribution they are making to countries in transition such as the Czech Republic, Poland, and Ukraine. Although these countries are not considered developing ones, they certainly share many of the same problems and challenges currently affecting some of the countries of the developing world. As many of the case

studies reveal, an emphasis needs to be placed on the design of labor market policies that assist the reintegration into work.

The Czech Republic, Poland, and Ukraine cases represent models that are using innovative strategies and approaches to deal with problems associated with the shortage of skilled managers, lack of workers needed to deal with serious housing shortages, and retraining of ex-military officers. These are issues affecting other countries in Eastern Europe and the New Independent States, therefore their experiences dealing with the challenges associated with human capacity building and workforce development are certainly worth sharing.

Outside Eastern Europe and NIS, the dual system of education and training practiced in Germany, Austria, Switzerland and Denmark represents an excellent example of efficient and valuable training. Considered by international experts as one of the best systems of vocational and technical learning, it has been adopted by many countries throughout the world, including Brazil, Colombia, Peru, and most recently the city-state of Shanghai and two other Chinese provinces.

Germany, although its economy has registered a decrease in production and a fall of employment rates in recent years, is still considered one of the most highly industrialized nations in the world. The German dual system of education and training is practiced throughout the entire country, including the former East Germany. This system prepares approximately 60 percent of the country's youth for entry into mid-level technical occupations and is considered one of the best professional and technical training programs in the world. This system has been crucial to Germany's trade expansion and also its economic revitalization efforts. The dual system provides an excellent model of a national training system that consistently prepares high quality workers.

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REGION: Europe

**The Czech Republic
The National Training Fund**

Case Overview

The Czech Republic's National Training Fund is a national program that subsidizes the cost of training people with the management skills needed to privatize state-owned industry and increase the management capacity of the country's private sector. The National Training Fund is financed by the European Union to help the country's public and new private sector meet challenges in health care, housing, and the environment. Meeting these challenges will require a pool of skilled managers in the public and private sectors who will be able to help the newly privatized companies adjust to global competition and help the restructured public sector organizations respond with appropriate services.

Before 1989, management was confined to organizing production and distribution under a command economy, run by means of a top-down hierarchy. How could the country's new sector organizations get enough skilled managers with the expertise needed in marketing, finance, and management to convert state-owned enterprises to firms that could compete in the international market? This issue confronts virtually every country that was formerly a part of the Soviet bloc. It is equally critical for many developing nations that are now building a private sector after decades of economic stagnation. Several other Eastern European countries have instituted National Training Funds, including Russia and Romania. The National Training Fund found in the Czech Republic offers a promising strategy of using market mechanisms to develop a pool of skilled managers.

The Fund's primary objectives are to:

- Cover wide gaps in adult retraining by providing a systematic process to adult training.
- Provide market mechanisms such as information about good training institutions and programs.
- Evaluate training institutions, trainers, and programs and make the information available to potential customers of training.
- Create a market for training by means of bidding out a variety of training packages.
- Develop a core group of leading training institutions and build their capacity.

Before World War II, the Czech Republic was Eastern Europe's most highly industrialized nation. Private enterprise flourished, and the country's businesses exported goods that were

generally considered high quality. Some 50 years of Communist rule dismantled the private sector, leaving the country with a strong and extensive industrial base. However, most of the country's industry was concentrated in large state-owned enterprises. Built for a command economy, these were unable to respond to the needs of a restructured country committed to joining the global market as quickly as possible. Privatizing state-owned enterprises would inevitably result in tremendous unemployment and social instability. One way out of this impending disaster appeared to be the development of private enterprises as quickly as possible to absorb the country's newly dislocated workers. Recognizing this problem, the European Union targeted its PHARE program (Poland, Hungary, Action for Restructuring the Economy) to provide financial and technical resources that would help the Czech Republic's newly emerging democracy make the transition to a market economy. With a grant of 2 million ECUs (US\$2.5million) from the PHARE program, the Czech Republic decided in 1993 to form the National Training Fund, the purpose of which would be to build management capacity and a market for management training in the country's newly emerging sector organizations.

There was no existing organization or individual in a position to respond to the training needs of the entire country. The Czech Republic needed an institution that would allow many stakeholders to come together in a shared purpose. Miroslava Mandikova, a Czech employed at the Ministry of Labor, had previously worked in Brussels as part of the PHARE program. With encouragement from the ministry and PHARE, Mandikova created a working group of various stakeholders in the Czech Republic. These included the Ministries of Trade and Industry, Labor, and Commerce; the employers' association; trade unions, and chambers of commerce. The working group incorporated in 1993 and successfully obtained funding from the PHARE program. The National Training Fund began working actively in November 1994.

Although it has headquarters in Prague, the Fund works throughout the Czech Republic to train mid-level managers who are currently employed. Their ages range from 23 to 55. A survey of all participants has been done, however, its results have yet to be analyzed.

Why This Case Was Selected

The Czech National Training Fund was selected among several other recently instituted training funds because the Czech Republic was the most highly industrialized of the Central and Eastern European states. Unlike some other Central and Eastern European states, the Czech Republic appears to most closely identify itself with fairly conservative, free-market approaches. The Fund was also selected for its:

- Extensive links to several Government ministries.
- Ability to quickly respond to the training needs of a rapidly developing private sector.
- Reliance on private sector mechanisms to ensure transparency and equity.
- Expansion into other training areas beyond management, such as helping to redevelop the country's vocational and technical education system.

Background

Among the emerging democracies in Central and Eastern Europe, Czechoslovakia was perhaps the most heavily industrialized country before World War II. The country's industrialization began in the last century, when Czechoslovakia was considered the most advanced part of the Austrian-Hungarian empire. Between the two world wars, Czech industry grew rapidly and Czech manufactured products were sought in world markets. Under Communist rule after World War II, Czech industry was directed predominantly to supplying the needs of the Soviet bloc with heavy industries, such as mining, metal and machine tools, industrial engineering, and arms. During this time, Czech industry lost communication with the developed countries of the West, and the gap between industry standards in the West and the Czech Republic continued to widen. Its gross domestic product (GDP) per capita fell to match the GDP of less-developed countries of Western Europe, which lagged about 20 years behind the economic output of France, Germany, or Great Britain.

When Communism ended in November 1989, Czech industry had an undeveloped service sector and was characterized by a monopolistic and centralized organizational structure. There was no private sector, no market competition, and virtually no small and medium-sized enterprises. Obsolete and environmentally wasteful technologies were matched by low productivity, as employment for virtually everyone was provided by the state.

As in other Eastern European countries, privatization became the means of transforming the nation's economic policies and structures. By 1994, the country's astute economic management (according to USAID) had liberalized 95 percent of all price controls, held annual inflation to 10 percent, limited budgetary deficits to less than 2 percent of GDP, and created a stable exchange rate and manageable foreign debt. According to an April 1996 report by the Czech Ministry of Trade and Industry, much of the new economic growth and absorption of the 500,000 people who had become unemployed because of economic transformation was accomplished by promoting the growth of new small and medium-sized enterprises within the new service sector. However, not all of the nation's industry have been privatized. Many think that the country's negligible unemployment (2 percent) would be considerably higher if full privatization had occurred. Developing a pool of skilled managers will be critical as larger, more difficult-to-privatize enterprises join the country's free market system.

Leadership and Accountability

Developing a competitive market for training is the first step. The availability of good training providers requires a competitive market for training, which then provides potential customers and suppliers with accurate and timely information about training needs, opportunities, quality, and cost. For it to be used, this information must be owned by all the various stakeholders coming from the public and private sectors. The National Training Fund faced the twin challenges of quickly increasing the quality of training in the Czech Republic and, at the same

time, dramatically increasing the supply of quality training programs to support organizations that needed the assistance immediately. This was done by means of a subsidy to any qualified institution that wished to offer training.

The Fund gathers its own data in the absence of reliable information. While the Fund was being established, the staff and directors decided to reject existing materials and studies as these were no longer relevant to the changes in the Czech economy. Instead, they decided to build up their own body of experience and standards, using what Fund consultant Dr. Milan Kubr called “qualified subjectivity,” to be replaced later by formal evaluations and quality reviews. Throughout the Fund’s existence, it has relied upon standards set by the European Union’s PHARE program to select the best training providers possible. These standards take the form of a four-step process: using detailed questionnaires to decide what types of programs were needed and setting up a request-for-proposals (RFP) process, examining the quality of learning materials proposed by training providers, evaluating a potential training provider on the basis of their reputation (it helped that the deputy director had previously worked at the Ministry of Commerce and personally knew many of the players), and conducting extensive interviews with potential training providers.

To determine disbursements, the training fund staff evaluate the training institution. Based on the evaluation, the Fund offers to subsidize the cost of the training and calls for training proposals through an RFP process. The institution advertises its training and lowered cost (subsidized) to potential customers. The Fund pays the institution the agreed-upon subsidy for each student.

The Fund developed a core group of training providers. During the first 18 months of its existence, the Fund worked with various experts in and outside the country to develop criteria it would use to select training providers. At the end of this period, the Fund was able to identify a core group of 19 training institutions that met its criteria for excellence. Fund staff continually review the criteria to guarantee the quality of training provided by these institutions. The Fund has also identified and subsidized the best courses offered by these institutions. The core group has been joined with outside experts to develop programs as requested by others. For example, the reform of the vocational education curriculum is one such request now undertaken by the Fund. Moreover, the European Union asked the Fund to develop modules for training Czech negotiators who will be working to bring the Czech Republic into the Union.

The Fund also improves training policy and practice by:

- Developing short-, mid-, and long-term strategies for management training in the Czech Republic.
- Hiring various specialists in training within different expertise, such as management, accounting, finance, marketing.

- Analyzing the current state of training programs and identifying gaps that need to be filled.
- Expanding its initial mission to include reforming vocational and technical education offered in public schools.

Demand-Driven Design

Managers in the new Czech Republic need training in a variety of management issues. Czech managers tended to be highly qualified technical experts whose problem was how to produce for a guaranteed and captive market. Unlike managers in Western economies, whose task is to generate and meet demand for the product or service, Czech managers had no previous customer orientation or experience. Nor did they have any experience in finance, accounting, or overall management, as these tasks were centrally performed. The new training demand is for skills that fill this gap.

The National Training Fund is closing the skills gap by:

- Building a market for training by creating incentives for competition among training providers, offering timely information about quality and cost, and creating incentives for potential consumers of training to select the most effective training provider for their needs.
- Effectively guaranteeing training by regularly checking the quality of performance of its core training providers. This informal guarantee is moving toward a formal certification process.
- Networking its staff, board, and customers in order to share information, improve its own performance, and identify new opportunities for support.
- Coupling the training to the international market through course content and international competition among consultants and training providers using the RFP process based on quality and achievement.
- Researching labor market needs through focus groups and conversations with employers, surveys, studies, sector-specific and area-specific studies, expert consultants, and meetings.
- Redressing the lack of accurate statistical data on skills in demand through a new study of adult learning needs in the Czech Republic.
- Upgrading the quality of trainers. High quality trainers are scarce in the Czech Republic. The Fund considers upgrading trainer quality to be extremely important, and are actively working on the problem with support from the British Know-How Fund, using the Cascade Training method.¹ The Fund also sponsors training of trainers at various institutions, mostly in the Republic, but also abroad. The training of marketing trainers is being conducted in partnership with Dutch training experts. In fact, the Fund considers the training of trainers one of its future markets and anticipates certifying trainers and training institutions for a fee.

¹ The Cascade Training method was likely pioneered by Xerox Corporation. Cascade refers to training individuals who in turn train others, who in turn train others.

Open Access

Any enterprise or individual may apply to the Fund for training. However, the Fund selects training institutions and trainers on the basis of criteria for excellence. These are determined by many of the stakeholders who participate in the Fund through its Advisory Board and Board of Directors. Individuals applying to the Fund must pay a portion of the cost.

Portability of Skills

Management skills are highly portable. With the advent of a free market democracy, a fundamental shift in values has occurred in the Czech Republic. Values such as meeting customer needs, adding value, providing value, obtaining feedback, adjusting practice, and competition all need to be learned. The training programs help to change basic attitudes and behaviors and impart new skills, which are portable to many positions.

As the training needs of public and private sector employers continue to evolve, employees will have to continue to be trained. Through the Ministry of Education, the Czech Republic is now offering continuing education courses for those who want to acquire a specific professional skill.

External evaluation is a condition of continued funding from the European Union. The Fund is externally evaluated as part of the PHARE program requirements. This evaluation is a standard PHARE evaluation, paid for by the European Union's Center for Foreign Assistance. It is performed by an independent evaluator. In addition, PHARE works on a 6 month work plan to allocate funds accordingly. Every 6 months, past and new work plans are reviewed by the board of directors. Next they go to the European Community delegation and then to PHARE's financial department for review. If the previous work plan has achieved the desired results, the European Union delegation approves the next work plan and authorizes new funds.

Staff monitor Fund performance as a form of internal evaluation. Besides the PHARE evaluation scheme, internal evaluations occur informally on an ongoing basis, as the program staff has only six people. The staff has diverse programmatic interests, and defending various priorities to others serves as a valuable evaluation tool. As part of its internal evaluations, the staff compares the relationship between results, objectives, and long-term results.

Public-Private Partnerships

The Fund is governed by a public-private Board of Directors. The Fund is governed by a board of directors that represents all the major public and private sector institutions in the country, including three ministries, the confederation of Czech industries, the Union of entrepreneurs, organized labor, and the Chamber of Commerce. In addition, the Fund has a board of advisors made up of outside and Czech experts. The broad public-private partnerships which support the Fund is one of its unique features.

Employers gain by participating in the Fund. Employers in the private sector are interested in increasing their ability to compete. To compete successfully, employers need skilled managers, particularly in service functions. Employers in the public sector also face entirely new demands for service, such as in the provision of state services or the privatization of health care. Fulfilling these demands requires managers with a different set of skills than were traditionally specified. Thus, employers have a great stake and interest in the type of training the Fund supports and the research and development it undertakes.

Employers have to pay some, but not all of the fee. Regarding direct investment, employers need to pay for the training only if they send individuals to be trained. If the entire enterprise receives training the majority of the training cost is paid by the PHARE subsidy. However, in most cases, employers still have to pay a portion of the fee. The Fund appears to recognize that its future will depend on employers' willingness to pay the full cost of the training. To achieve this, the Fund will need to demonstrate to firms the importance of the investment in training through its return. The Fund recognizes the difficulty of linking returns to training but plans to identify these by means of extensive evaluation studies.

Sustainable Financing

The Fund is moving from relying on PHARE support to become self-sustaining. In operation only since 1994, the National Training Fund is fully financed by the PHARE program. As a transitional strategy to continue efforts when the PHARE support ceases, the Fund is beginning to sell its services so that it will be sustained by public and private sector resources. Other funding sources beyond PHARE are beginning to emerge. For example, one ministry has contracted with the Fund to do various projects. These include a strategic study on reforming the vocational and technical education system, establishing a national coordinating unit for vocational and technical education in the European Union, and training in negotiation for the Ministry of Foreign Affairs.

Replicability

The National Training Fund is highly replicable. A number of other national training funds already exist in Russia and Romania, and a Task Force for Training exists in Poland. The Fund is most applicable in countries where a wider promotion of training is needed, where it is important to increase the capacity of a whole sector rather than one or two institutions, and where a core group of new skills is needed for an entire industry category.

Economic and Social Impact

The National Training Fund is increasingly recognized by small and medium-sized enterprises as a provider of support and information for high quality training. Use of the Fund has

increased from 5 to 35 percent during the 18 months of the Fund's existence. Many of the firms are now approaching training providers for a second round of training. Training providers see the management of the Fund as an ally that provides important added value. The Fund's current director is perceived as a successful manager who can use resources efficiently to implement successful programs. The director is skilled in tying together the Fund's interests with those of the ministries and is unofficially considered a deputy minister at the Ministry of Labor. Because of the newness of the project, no evaluation data are available, although a number of evaluations and studies are underway.

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REGION: Europe

**Federal Republic of Germany
The Dual System of Education and Training**

Case Overview

The dual system of education and training is practiced throughout Germany and in the other German-speaking countries of Austria, and Switzerland, as well as in Denmark. It is called dual because education and training of approximately 60 percent of all youth between the ages of 17 and 22 is done concurrently in schools and workplaces throughout all regions of Germany, including the former East Germany. Although the German states contribute toward the cost of each “youth apprentice” by funding education received at school, the majority of the costs are borne by employers, who invest from US\$4,000 to US\$17,000 a year for each young person in the system so that he or she can acquire the technical skills and knowledge German employers consider essential for maintaining a leading position in exports. Considered by experts throughout the world as perhaps the best form of professional/technical training,¹ various features of the dual system have been adapted by many countries throughout the world. The dual system is not a program or a project. Rather it is a system that prepares youth for entry into mid-level technical or professional occupations in the manufacturing and service sectors. The dual system is the means by which the majority of German-speaking youth who do not go immediately to university acquire the credentials they need to be able to work. Many students who qualify for university and some university graduates also participate in the dual system because they want to make sure they have an edge in a highly competitive labor market. The dual system is considered a part of the public education process.

The objectives of the dual system are:

- To prepare youth to enter various industry sectors with the theoretical, technical, and workplace skills they need to ensure the high quality of Germany’s goods and services in the export market.
- To prepare youth by means of a broad, legally structured framework among all the social partners in the system: educators, employers and employer associations, trade associations, organized labor, chambers of commerce and trade, parents, and youth.
- To ensure that the skills youth learn are up-to-date and benchmarked to world class standards.
- To ensure a continuous supply of high skilled new entrants. This would help prevent a rise in the cost of skilled labor which could lead to inflationary pressures.

¹ Glover, Robert. *Apprenticeship Lessons from Abroad*. Center for the Study of Human Resources. University of Texas at Austin, 1986

Many policy-makers believe the dual system is an outgrowth of a uniquely German culture and therefore cannot be replicated. Others argue that adopting the system would require the presence of many supporting institutions.² Even though it is true that the dual system had its origins in the guilds of the Middle Ages, when master craftsmen took on apprentices who in turn became masters, the dual system depends not so much on culture as on a legally sanctioned partnership between employers, employer associations, youth, their parents, schools, and organized labor. The role of the federal government is to provide the legislative framework and carry out research and development activities that make sure the partners in the system have information about changing skill requirements in various sectors of the economy.

More than half of all German employers and all the trade unions, chambers of commerce, and employer associations participate in the dual system. They have invested in an extensive network of support facilities, such as super-regional and regional training centers, to “fill in” any gaps in learning that youth might have experienced in workplaces that are less technologically sophisticated. With the exception of medical education (nursing, health related), some 300 manufacturing and service occupations are part of the dual system. These occupations cover much of the economy. Young Germans who wish to get a job in one of the 3 1/2-year training within the system. Employers who fail to teach youth the requisite skills lose their “license” to provide training. Being a training institution is considered an honor in Germany, and it is not unusual to find bakers, dressmakers, banks, and electronics firms proudly displaying their training permits on their front doors. Trade unions are an integral part of the dual system. They ensure that the curriculum is broad enough to develop portability of skills and that youth in the system are not exploited. The emphasis on broad stakeholder partnership is one of the conditions imposed by the United States under the Marshall Plan during Germany’s reconstruction after World War II.

German employers continue to attribute the high quality of their country’s goods and services and the positive trade balance (exports \$437 billion and imports \$362 billion)³ to their investment in the dual system. German parents and workers believe that their high standard of living depends to some degree on maintaining the dual system.⁴ In recent years the number of youth in the system has decreased from 70 to approximately 60 percent, as youth seek to delay career choice as long as possible in Germany’s changing labor market. Nonetheless, the quality of the large number of youth (including those planning to go to university or university graduates) who gain high-level skills and knowledge in the system appears to impress foreign policymakers and researchers who visit Germany to learn about how they might adopt the system in their countries. The dual system is considered by learning experts as an effective way to learn,^{5,6} as learning is situated in real life contexts and

² Finegold, David, et al. "International Models of Management Development." In *Enterprising Nation, Report of the Industry Task Force on Leadership and Management Skills*. Australian Government Publishing Services, April 1995.

³ CIA World FactBook, World Wide Web, 1995.

⁴ Numerous personal interviews with German employers, workers, parents, youth from 1990 - 1996.

⁵ Hamilton, Stephen. *Apprenticeship for Adulthood*. Cornell, 1992.

driven by the need to solve a problem. Learning experts also agree that the dual system provides youth (including disadvantaged youth) with membership and status in the adult society, at the same time giving them high degrees of responsibility with the necessary support to succeed in the learning process. Although the final exams in the dual system are considered very challenging and may in some industries be considerably above the level of U.S. community college graduates,⁷ some 90 percent of youth pass the exam successfully.

Another important result of the dual system is Germany's low (10 percent) dropout rate. Many learning experts theorize that the dual system of learning may be responsible for keeping youth in the system's structured education and training process more successfully than in other systems. What makes the system work may also be considered a disadvantage in that the system is fairly inflexible and impedes the completion of substantial policy or content changes. The old-line dual system that was linked to the former East Germany's state-owned companies is being transformed as quickly as possible to match the practices in the west. The dual system does not provide for life-long learning, although it could easily use the framework to upgrade skills of current workers.

Why This Case Was Selected

The dual system was selected for:

- The extent to which it brings together and holds accountable all the stakeholders in the system for developing the skills of the nation's youth. This social partnership produces a highly educated majority at a lower cost than the cost of full-time schooling.⁸
- Demonstrating that it is possible to prepare individuals with equity and with high quality results.
- Providing youth with clear links to employers and high status jobs.
- Functioning as a learning system, as defined by Senge.⁹ Information from each stakeholder (employers, students, union members, trade associations, schools, and chambers of commerce) can swiftly be shared through the local, regional and national network.
- The way in which learning-by-doing is reinforced by theoretical knowledge.

The dual system was also selected because it:

⁶ "Youth Unemployment and the Transition from School to Work: Programs in Boston, London and Frankfurt." *New England Economic Review*, March/April 1987.

⁷ For example, a typical final exam in the electronics/metalworking sector includes a final project in which a team of youth apprentices have designed, produced, written software for, assembled, and demonstrate a miniaturized robotics assembly. Personal observations by author during numerous visits to AEG, Siemens, and other employers.

⁸ Finegold, David, et al.

⁹ Senge, Peter. *The Fifth Discipline*. Doubleday, 1990

- Has been so widely examined throughout the world. Many countries have adapted the dual system to their own use, and versions of it can be found in the cases on Chile, Peru, and Honduras (Zamorano).
- Has recently been introduced into three of China's states.¹⁰
- Is being adopted in a modified form by U.S. states and localities. Recognizing that the dual system produces highly skilled and motivated entrants into the labor market, in 1994 the U.S. Congress authorized legislation that creates incentives for every U.S. state to adopt a version of the dual system.

Background

Germany is considered one of the most highly industrialized nations in the world, and virtually every German is highly literate. Many Germans speak more than one language and most receive a public education, the quality of which is considered superior to that received by average Americans.¹¹ As in most of the other industrialized nations, German schools are the responsibility of the *Länder*, or states, and not the federal government. Germany offers its youth a wide variety of public secondary schools so that different learning styles and interests can be accommodated. Each city has several vocational/technical high schools in addition to a wide variety of post-secondary institutions. Vocational/technical high schools participate in the dual system and German students typically spend 2 days a week in the school and the remaining 3 days learning at their workplace. Between 30 and 40 percent of German youth go to universities that are free of charge. However, university entrance is highly competitive. Openings are made available based on a formula that correlates demand in the marketplace for a given occupation; for example, the formula correlates demand for a chemist or graphics designer with the grade-point average the student achieved in the final exam (*Abitur*) with the number of university places available for that occupation in the nation.

The remaining 60 percent of German youth enter the dual system. Employers invest in the system because it allows them to share the cost of the basic 3 1/2-year training with one another through the various support services that are available to everyone in the system. For example, a young person training for banking occupations in a small- to medium-sized bank in a rural part of Germany is supposed to get the same training as a youth at the German Bundesbank. Differences in exposure to workplaces are compensated for by sending youth to the regional training centers that are supposed to fill in the gaps in skills. The cost of this training is supported by employers. Employers in the dual system are not required to hire graduates they have trained.

By sharing in the cost of the initial training, employers can shape the training of potential new workers around their own technical needs and work organization. Sharing the cost of the initial training with other employers and stakeholders also lets employers use their

¹⁰ For information, see the case study "Province of Shanghai, China: Regional Institute for Research in Workforce Formation, Education, and Development," in the *Compass to Workforce Development Toolkit*

¹¹ AFT Report: High Stakes Exams in Four Countries. 1995.

resources for specific, in-company training. German chambers of commerce in every town maintain a staff of experts whose job is to supervise the quality of the system. This is possible because the training specifications employers must comply with are the same for every employer and youth apprentice in a given industry throughout the country. These specifications are developed by the employers, their associations, organized labor, and educators. The specifications are continually reviewed in a process that is facilitated by Germany's Institute for Research in Vocational Education and Training, the Bundesinstitut für Berufsbildung (BiBB).

Leadership and Accountability

Social partnership as an underlying principle of organization. The basic organizing principle underlying the dual system is that of "social partnership." This means in practice that employers, organized labor, schools, chambers of commerce, and trade associations as well as the government all must work together to ensure the development of highly skilled young people. Stakeholders believe this will help keep inflation low and minimize youth unemployment.

The dual system uses the following strategies to help ensure all youth in the system reach the same high quality standards:

- The dual system standardizes broad processes and skills but allows for flexibility and innovation in how to achieve skill levels.
- Students learn in real-life settings (workplaces) where learning is driven by their participation in a variety of structured, project-based learning experiences.
- Academic learning supports hands-on learning.
- Quality controls and accountability are embedded in the system. This helps virtually all participating youth meet high expectations. Each stakeholder in the system is held accountable in specific ways for the success of the training process.
- All stakeholders win because each benefits by participating in the system: employers gain highly skilled youth for lower cost; organized labor gain employability for their future members through cross-training; chambers of commerce gain by showing they serve employers by supervising the quality control process; and trade associations gain by serving employers with valuable services for their members (researching future skill needs, labor market trends, etc.).
- National skill standards and curriculum frameworks structure the training and education process so that its quality is highly consistent throughout the country.
- Accessibility. Every youth who wants to is usually able to find a training place and school.
- Conformity. The system is not very flexible. Changing elements of the system typically takes a long time as the political negotiations among all the social partners slow the process.
- Personal responsibility. Youth must find a training place at a firm on their own. This is a highly competitive process.

Standards and standardization within industry sectors are what make the dual system a system—not a program or project.

1. Standardization of processes. Criteria are set by broad consensus among employer associations, labor, and schools.
2. Standardization of skills required for each occupation—regardless of the region—are set by employer associations, organized labor, and schools. Research that supports the developing of the standards is conducted by a special research institute within the federal government.
3. Exams test whether students are learning appropriately. Exams are given once in the middle of the 3 1/2-year training period and at the end.
4. Skill diplomas are given to students once they have successfully passed the final exam. Without these diplomas students may not enter the labor market as skilled workers. Training standards are set for employers who wish to train. They must meet stringent standards which include the presence of specially trained mentors/instructors, training facilities, and training time.
5. Master trainers are individuals who have earned technical credentials and who have taken additional pedagogical training and passed a qualifying exam before they may train youth.
6. The dual system operates under the guidelines of the Vocational Education and Training Act of 1969 which spells out the duties of each of the stakeholders in the system.
7. Bylaws of chambers of commerce, trade associations, trade unions, and schools govern their roles in the system.

Demand-Driven Design

Working in concert with trade unions and a federal research and development institute, employers determine what skills are needed to stay ahead. Employers, who are in a sense the “customers” and “suppliers” of the dual system, determine through their various trade associations the skills and competencies they want and need to be competitive. Neither schools nor the federal or state governments play a leading role as employers drive the system to meet their needs.

Research is conducted systematically to determine what occupations and skill sets are needed to maintain a competitive lead in the global economy. Under contract to the trade organizations and organized labor, the Federal Institute for Research in Vocational Education and Training (BiBB) conducts research on future trends to determine what skills and competencies for each occupation will be needed in the global economy. Although this process helps to ensure that the system stays responsive to changes in the way work gets done, it tends to be slow. For example, it took 10 years to get new standards accepted for metalworking occupations. According to German experts, the technical problems are not as time-consuming as the political negotiations required to achieve consensus among the social partners.

Everyone knows what jobs are in demand and what it takes to get them. Labor market needs in Germany are carefully researched and communicated to youth by the *Bundesinstitut für*

Arbeit (Ministry of Labor) which each year publishes the expected number of job openings for each occupation to be found in Germany. Youth, their parents, and their teachers carefully consider these statistics and use them to decide what occupation to pursue.

Dual system trainers are certified masterworkers who are also certified to teach youth. Dual system trainers at workplaces are experts who have usually earned university or other post-secondary degrees and completed technical training to the level of *meister*, or mastery. Following this trainers have to complete course work in training and teaching and pass an exam. If they pass the exam, they receive a special license that permits them to train youth. Teachers in vocational schools have a master's degree or higher, plus several years' experience in industry.

All the stakeholders in the system know what youth should be able to do at the end of their 3 1/2 years in the dual system. The dual system requires two deliverables of participating youth and their teachers: first, the *project* that the student must show to the examining committee at the regional Chamber of Commerce, and second, the *final exam* which includes written and oral parts. The dual system is both competency and time based. It is primarily competency based in that it spells out clearly what skills and competencies are to be mastered during what part of the training period. In this way mastery of the skill standards is plotted along a 3 1/2-year time period.

Open Access

The dual system is for all youth who don't immediately go on to university. The dual system is geared toward all youth between the ages of 17 and 22 for entry into mid- and upper-level technical and service occupations. Youth in Germany are generally not able to find work unless they have acquired the credentials associated with a particular field of work. Approximately 300 occupations require a dual system credential. Virtually all the others require evidence of successful completion of post-secondary studies. In Germany approximately 10 percent of youth “fall through the cracks.” This low dropout rate (compared with 25 percent and higher in the United States and other advanced industrial countries) has been attributed by various experts to the fact that many youth who are not academically inclined or who question the relevance of their studies find significant challenge, responsibility, and status in the dual system. Those students who drop out because they do not like the occupation they have chosen to learn in the system are eligible for one more chance at learning a different occupation.

Young men and women participate equally in the dual system. The dual system is equally accessible to men and women. However, women occupy the majority of the service occupations and men the bulk of manufacturing occupations, despite several national efforts at recruiting women and girls into nontraditional occupations.

The dual system encourages the participation of Turkish youth. Experts argue about the extent of discrimination against immigrants in the dual system, for example, Turkish youth. Some claim there is discrimination, others point out that certain Turkish parents object to their daughters' participation in the system as it changes fundamental assumptions about status in the family.

The dual system has special programs for the disadvantaged. The dual system is accessible to youth who have difficulties in finding regular training places within firms. These difficulties might be due to physical or social disabilities. In many cities, though not all, special facilities exist to provide parallel training to the dual system, although in a more supported environment. For example, in Hamburg, the state runs special workshops or “pretend workplaces” that provide each group of six youths with an academic teacher, a technical teacher, and a social pedagogue (social worker). According to officials in Hamburg, 98 percent of these youth pass the same final exam as their peers who trained in firms and vocational schools.¹²

Portability of Skills

Students learn complex higher order skills in the dual system. Youth in the dual system usually learn in teams, both in workplaces and schools. Moreover, the workplace learning follows protocols known as *leittexte*, in which students are given a problem to solve (such as

¹² Conversations by author and personal visits with officials in Hamburg and with the special schools in 1991 and 1994.

building a certain tool) and then coached by their mentor on defining the steps needed to successfully complete the task. This process typically involves a great deal of group interaction, negotiation, and managing the mentor and others in the firm who act as resources for the students.

Skills learned in the dual system are portable among firms, regions within Germany, and within European Union member states. Any youth who obtains the skills diploma at the end of her or his apprenticeship period is employable by any firm in any country in the European Union, provided the firm has a need for someone in that occupation. This portability is one of the provisions of the Vocational Education and Training Act of 1969.

There are no specific linkages to lifelong learning in the dual system. Generally speaking, educational institutions and workplaces are not set up to provide lifelong learning opportunities. However, the topic of lifelong learning is being discussed in Germany, especially among policymakers, trade unions, and employers.

The dual system is the first rung of the ladder of Germany's technical and vocational education system. The dual system connects directly to the vocational branch of the public education system in that students continue to learn in public vocational schools. They can also continue their studies in higher level technical universities. The system also connects indirectly with the academic branch of the system. For example, students who change their minds and wish to pursue a university education can go to special "bridging" schools that lead to university entrance. A number of youth pursue this avenue each year, as these bridging schools can be found attached to virtually every university, free of charge, as are the university studies.

Continuous Improvement

The dual system is a self-learning system. Each stakeholder continuously monitors the system's performance by checking results achieved against results intended.

1. Employers monitor the quality of training through the projects students in the dual system are asked to produce. These projects are often sophisticated, and may take the entire 3 1/2 years to complete. For example, in the metalworking/electronics occupations, students are required to design, build, assemble, and run a robotic assembly that can produce a miniaturized car or some other comparable item.
2. Chambers of commerce monitor the quality of training by means of visits to training firms. Chambers have teams of specialists whose task is to assess the quality of training in workplaces and schools.
3. Employers, chambers of commerce, organized labor, and educators monitor the quality of training by means of the midterm and final exams which they jointly develop for their region.
4. Students and their parents monitor the quality of training and are free to communicate any problems with chambers of commerce which are the official keeper of the training contract.

5. Students, their parents, the employer, and the relevant trade union monitor the quality of the training by means of the training contract which all parties must sign.
6. Organized labor monitors the quality of the training as well. In each firm, a special member of the workers' council is responsible for monitoring the training youth receive within the dual system and for pointing out any potential abuses.

Innovations in the dual system are extensively pilot tested and externally evaluated before they become a part of the system. The Federal Institute for Research in Vocational Education and Training (BiBB) performs extensive "external evaluations" in the form of research studies and pilot projects before introducing a particular innovation into the system. As a result, problems are usually worked out before the innovation goes to scale. Moreover, a number of generally favorable studies have been done on the dual system, including studies by the Organization for Economic and Community Development and by Stephen Hamilton of Cornell University.¹³

"Early warning systems" alert stakeholders if youth are not learning as planned. The main indicators of performance in the system are the midterm exams taken at the end of the first year. Chambers of commerce staff, employer, training supervisor, organized labor representative, and students all participate in the review and determine to what degree a student will be able to meet the competencies spelled out in the industrywide curriculum for the end of the first year. If a student does not have the required skills as specified, the employer is held accountable and asked to improve her or his practice. Trainers are evaluated periodically by their students' results in workplace learning.

Public-Private Partnerships

Employers believe they gain substantial competitive advantage by participating in the dual system. For example:

- Employers get access to the best and brightest of future workers by observing them in the workplaces for 3 1/2 years.
- Employers gain consistently highly skilled entrants into their company, regardless of where the training took place.
- Employers obtain productive use of apprentices for lower cost throughout the apprenticeship period.
- Employers keep their own quality processes high by training.
- Employers avoid paying unduly high costs for highly skilled labor.

Employers invest substantial resources in maintaining the dual system. Employers pay "training" wages to youth in the dual system ranging from an average of US\$652 in the first year to an average of approximately US\$728 in the third year, depending on the industry.¹⁴

¹³ Hamilton, Stephen.

¹⁴ For a detailed analysis of costs of the dual system, see Karin Wagner's paper, "Why Does the German Training System Work: The Incentives that Drive the German Apprenticeship System," prepared for the National Institute of Labour Studies, vol. 21, no. 3, September 1995.

“Training” wages paid to youth in the system are negotiated by tariff and hold true throughout Germany. Employers also pay mandatory fees to their chambers of commerce which are responsible for supervising the functioning and quality of the dual system in each city or region. Moreover, employers pay a fee to their trade associations who perform research into future skill needs.

The partnership among the stakeholders in the dual system is legally sanctioned and holds the force of contracts. The dual system is made possible by a legally structured partnership between industry, education, organized labor, chambers of commerce, government, and participating youth and their parents. This partnership is codified in Germany’s Vocational Education and Training Act of 1969. Before a young person enters training with a German employer participating in the system, the youth must sign a contract which is countersigned by his or her parent, the employer, and the school. This contract is held at the Chamber of Commerce or Trade throughout the 3 1/2 year education and training period.

The public sector plays several important roles in the dual system:

1. It conducts research and convenes all the stakeholders to maintain ongoing conversations about skill requirements, demand, and training places for youth (federal).
2. It provides academic and vocational education (state).
3. It provides training places for youth in public sector enterprises such as savings banks and utility companies.

Sustainable Financing

The dual system is financed by each of its stakeholders. The cost per individual of the dual system has been estimated to range between US\$4,000 and US\$25,000 annually, excluding the cost associated with the schools. This cost is financed primarily by employers, through training wages and costs associated with training in their workplaces. Employers also pay chambers of commerce to control the quality of the training in their regions. The system is also financed by the states who pay for the academic/technical education students receive in schools while in the dual system. Labor market information and the maintenance of a Labor Market Information Center, with libraries, databases and staff in each German town are paid for by the Ministry of Labor but contribute directly to the functioning of the system. Organized labor contributes resources to the system in the form of staff, funding for research, and participating in the mid-term and final exam process. In a sense students contribute some of the costs of the system by foregoing possibly higher wages in other countries, as in Germany they exchange reduced wages for training and education.

The financing system is flexible in that different stakeholders all contribute to the system. Presumably, this would allow easier adjustment should one stakeholder pull out. In operational terms, however, each social partner is expected to support a part of the system financially and in other ways agreed to in the Vocational Education and Training Act of 1969. For example, if electronics employers in the trade association feel students need additional experience in a new technology (for example, integrated control systems),

employers can and do pay for enriching the curriculum for the workplace. They often discuss such issues with the local schools, which often respond by modifying their curriculum.

Replicability

The success of the dual system depends on three main elements: First, “practical” learning occurs at work and “theoretical” learning in school. Both follow a prescribed curriculum that is similar for everyone, regardless of location or background. Second, employers invest and drive the system within a broad partnership of all the social partners. Third, stakeholders participate in legally sanctioned ways. For example, countries with weak employer associations or countries without strong chambers of commerce would need to develop such institutions to have a fully functioning dual system. Likewise, countries without strong organized labor would have difficulty replicating the system. Left to their own devices, employers tend to train for fairly narrow skills without the moderating influence of trade unions. The dual system, or various of its elements, has been replicated in many parts of the world, including Brazil, Chile, China, Peru, and several African countries (see separate case studies).

Economic and Social Impact

The dual system helps to drive Germany’s economic performance. German employers, workers, parents, union members, teachers, and students generally believe that the dual system is one of the drivers of Germany’s economic growth. They point to the system’s training of a broad group of individuals with such high technical and professional skills that Germany can maintain its superior position with regard to quality of products and services. This success of education and training will help to ensure Germany’s favorable export balance and to provide resources to fuel continued economic growth.

Some immigrant parents resist their daughters’ participation in the dual system as it will raise their status to match that of men. In Germany, as in other highly industrialized nations, the status of women and girls is protected by law and part of the social fabric of society. German wages are set by tariff agreements and cover occupations in an industry. The dual system aims to improve the status of Turkish or other immigrant girls in that it provides them with skills equal to any young German in the system. A number of German employers and educators report, however, that many immigrant parents fear the dual system for precisely that reason and often keep their daughters out to ensure the superior status of men in the family and their subculture.¹⁵

The dual system is cost-effective in the mid- to long-term. Employers, organized labor and policymakers believe the system to be cost-effective in the *mid-to-long term*, not in the short term. Ninety percent of all youth successfully complete the training.

Virtually all dual system graduates find a job within a reasonable period of time. However, this depends to some degree upon the economic cycle. The dual system deposits young adults at a higher level of entry than might be supposed and can lead graduates all the way to top management positions. Approximately seventy percent of German CEOs in the

¹⁵ Author’s conversations from 1990 - 1996 with a number of German experts.

manufacturing sector have gone through the dual system. In general, the dual system deposits graduates in jobs leading to professional or technical occupations.

Wages paid to dual system graduates are negotiated by tariff and generally support the individual and his or her family. Youth who complete the dual system and obtain a job are generally in a position to support themselves and start a family. This depends however on the economic cycle in Germany at the time of graduation. Wages also depend on the occupation youth have selected. For example, baker's assistant wages are considerably lower than electronics technician wages.

Education and training in the dual system usually supports high standards for environmental quality. Germany is recognized for its high environmental standards and these have been translated to a great extent into the training curricula as appropriate.

The dual system helps to ensure transfer of technology from large to small firms. For example, small firms who may not have the highest technology processes in their workplaces must send their youth apprentices to a regional training center so that they can get the skills other youth learn at more sophisticated workplaces. Many employers believe that this practice helps them "learn" from their apprentices. Generally, technology is highly sophisticated in German firms, who utilize automated processes and equipment, such as digitally or pneumatically controlled, computerized tools. Students in the dual system are first introduced to high tech processes through traditional hand tools in order to experience a "fingertip feel" for what quality and precision work is all about.¹⁶ Technical training at Germany's workplaces, for instance almost invariably starts out with simple hand tools before youth move to progressively more sophisticated tools.

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Acknowledgments

The author gratefully wishes to acknowledge all those who made this case possible. Thanks especially to David Finegold of RAND who reviewed this case study. A special note of thanks goes to the German Parliament and the German Marshall Fund

¹⁶ Conversations by author and personal visits with various employers and trainers throughout Germany.

of the United States for providing the author and others with numerous opportunities to study the dual system in Germany.

Primary Author: Monika Aring

REGION: Europe

Poland

Building Trades Craft Union Training Consortium

Case Overview

The Building Trades Craft Union Training Consortium is a joint partnership between the United States Department of Labor, the U.S. Building and Construction Trades Department, AFL-CIO, the Polish Government and Solidarnosc, to train unemployed Polish workers in the construction industry. The consortium is the result of an initiative conceived by a presidential mission in 1989. Then Secretary of Labor Elizabeth Dole, former AFL-CIO President Lane Kirkland and Building Trades President Robert Georgine noted a serious housing shortage and unsafe conditions related to construction in the jobsites they visited in Poland.

The Consortium now has 2 training centers, in Gdynia near Gdansk, and in Praga, a suburb of Warsaw. The centers offer hands-on training in construction trades, based on the U.S. apprenticeship model. Eighty percent of the participants are employment office referrals; twenty percent of the participants are from the Solidarity movement. There have been over 2,000 graduates to date, with a nearly 100 percent employment rate. In fact, employers try to hire them even before they complete the program. Also, many of the students have started their own small construction businesses.

The training program is modeled on the apprenticeship program in the United States which is run by organized labor for a variety of trades, including bricklayers, ironworkers, plumbers and pipefitters, electricians and carpenters. The curriculum for training construction workers was translated and adapted for Polish workers.

Why This Case Was Selected

The Building Trades Craft Union Training Consortium was selected because it:

- Brings together labor, management, government, and workers so that each group works as an equal partner
- Trains unemployed construction workers to alleviate the critical housing shortage in Poland
- Trains workers to become self-sufficient workers
- Provides an example of how the supply and demand for training can be improved across national boundaries

Background

In 1992, the Polish government instituted significant changes to its constitution, marking the beginning of its transformation from communism to democracy. Poland is remarkable among former Eastern European countries in the speed of its transition to a market economy, beginning in 1990 when the new government decontrolled prices, slashed subsidies, and drastically reduced import barriers. Poland has experienced a noticeable economic growth rate compared with other countries in the region. Since 1991, all the growth has come from the private sector, which accounts for approximately 55 percent of the gross domestic product (GDP), even though most industries remain in state hands. The unemployment rate varies from region to region within Poland, with a high near 30 percent in some areas. Nationwide, the rate is 16 percent. Poland's primary trade customer is Western Europe, to whom it supplies intermediate goods, machinery and transport equipment, and miscellaneous manufactures. According to observers, the government elected in 1993 is managing fiscal matters well, but the pace of privatization is slow.¹⁷

Following the presidential mission of 1989, Ironworkers General Vice President and Executive Director of Training Raymond J. Robertson, (also the chairman of the Building Trades-Metal Trades Joint Apprenticeship Committee), led a team of national Apprenticeship and Training Directors from the four other U.S. International Unions: Electricians (IBEW), Carpenters, Plumbers and Pipefitters, and Bricklayers to Poland in the spring of 1990. The team surveyed construction sites, both residential and commercial, and looked at existing buildings that could be used for a training facility. They selected Praga as the site of the first training center.

The directors then selected 10 highly qualified Polish construction craftsmen instructors out of approximately 25 that were recommended by Solidarnosc. These Polish instructors participated in a 3 week train-the-trainer course at the George Meany Center in Washington, D.C. to update teaching skills and develop presentation techniques.

Upon completion of the course, the Polish trainers went to Chicago where they were paired with Polish-speaking American craftsmen who volunteered their time for the project from each of the unions. They visited various jobsites, worked with American craftsmen on residential and commercial jobsites, and observed Apprenticeship classes at the training facilities of each union. At the jobsites, the craftsmen learned how various crafts work together, and used the latest technology and equipment. The on-the-job training stressed safety methods as well. The Chicago training was conducted over a 3 month period. Participating along with the trainers was the female Polish Director selected by the National Directors. She was not only a member of Solidarnosc, but was highly qualified in engineering and construction.

¹⁷ CIA World Factbook, World Wide Web, 1995.

The 10 Polish trainers and the Director returned to Poland with 5 Polish-speaking American craftsmen where they renovated a building to serve as the training center in Praga Poland, a suburb of Warsaw. The classes started immediately. The program's success prompted the Consortium to open an additional training center in Gdynia, Poland, near Gdansk, where a shipyard's closing would result in many unemployed workers. These former shipyard workers already possessed some construction-related skills.

Leadership and Accountability

A joint partnership between organized labor in the United States and Poland manages the program. The program is led by the chair of the National Training Directors Delegation, who also chairs the Building Trades Apprenticeship Program. The AFL-CIO is operating on a voluntary basis in this project, investing a great deal of time to help craftsmen in Poland. The centers operate with permission granted by the Ministry of National Education, and its programs have been approved by the school board. The training centers also operate under the direction of the Solidarity Economic Foundation, the legal entity through which the AFL-CIO participates. Requests from the training centers pass through the chair of the National Training Directors Delegation and the U.S. Department of Labor.

On-site staff at the training centers administer the programs. In Poland, there are two directors at the Centers, two job site coordinators, an administrator, over 20 instructors, and support staff.

Demand-Driven Design

The training program was developed in response to market demand. The consortium developed from the need to put unemployed workers back into the workforce, while at the same time helping to alleviate the housing shortage in Poland. When the consortium was conceived, the typical wait for housing was 25 years.

Training in international standards can improve the quality of the workforce and attract foreign investment. A byproduct of improving the skills, knowledge, and techniques of construction workers is that Poland may become more attractive to foreign companies. Investors can be confident about the quality of workmanship because the workers are well-trained to use modern technologies. The contractors are also purchasing newer equipment that the workers have been trained to use, so both the tools and the knowledge have improved.

The adoption of international standards can lead to improvements in existing domestic standards. The Polish government, in cooperation with the Institute of Building Research in Warsaw, is working on adjusting Polish building codes to international standards. Foreign building materials entering the Polish market must be certified by the Institute.¹⁸ While

¹⁸ Agatha Drozd, Polish-American Building Crafts Training Center, Poland. Faxed communication, August 1996.

changing building codes is not part of the Consortium's goals, the Consortium's work is influencing the codes.

Skilled craftsmen trained their peers to become trainers. In 1990-1991, Solidarity selected a group of highly qualified craftsmen to become trainers. The Apprenticeship and Training Directors of the U.S. International Unions then selected 10 of these experienced craftsmen to participate in training. These trainers participated in a 3-week training course at the George Meany Center in Washington, D.C. In the course the craftsmen learned how to become trainers, taking classes in teaching methods and developing presentation skills. Upon completion of the course, the trainers were paired with American craftsmen and sent to job sites in Chicago where they received on-the-job training and applied what they had learned. American trainers were members of the building trades division of the AFL-CIO, and volunteered to serve in the program.

Students are tested on their ability to implement acquired knowledge and skills. The training program is competency-based, not time-based. During a 4-month course, students are trained to become independent construction workers, able to work with blueprints and other tools of the trade. To earn certificates in gas and electrical welding and electrical wiring, students are required to pass specific tests, as these trades are certified by the Welding Institute and the Association of Polish Electricians. Over a short period of time students learn more skills than some of them had acquired during their years in school.¹⁹

Open Access

A few types of training programs are offered. The Consortium offers three types of training programs: A four-month apprentice course is available for those who have no background in building crafts but want to learn the trade. A 4- or 6-week course is offered to construction workers looking to upgrade their skills. A business promotion course is offered to those interested in becoming small business owners.

The program is open to all. The training program is open to men and women. However, only three women have graduated from the program (one electrician and two carpenters).²⁰ The students enrolled in the program are typically between 18 and 40 years of age, and come from all over Poland.

Portability of Skills

The training reflects a commitment to preparing workers for eventual self-employment. The apprenticeship model uses peer to peer learning, in which craftsmen are trained to teach others their trades. In addition to learning the latest in construction technology, participants can enroll in small business training courses on Saturdays. Particular emphasis is placed on

¹⁹ Agatha Drozd, Polish-American Building Crafts Training Center, Poland. Faxed communication, August 1996.

²⁰ Agatha Drozd, August 1996

quality workmanship, safety, and labor management. The 44-hour course provides the skills and training one needs to become self-employed.

Technical training courses extend the career pathway. In the apprentice program, students can be trained as bricklayers, ironworkers, plumbers, electricians, carpenters, sheetmetal workers, or roofers. A 7-week retraining course teaches craftsmen the skills of putting up dry walls and suspended ceiling constructions. Upgrade courses include work in tile-setting for bricklayers, copper fixtures fitting technology for plumbers, and electrical motor control for electricians.²¹

Construction skills are portable from one employer to another and from region to region. For those workers seeking to own construction businesses, work is available in this industry in various regions.

Continuous Improvement

The program is evaluated on a regular basis. A consortium of building trades unions internally monitors the program under the auspices of the U.S. Agency for International Development. The heads of the U.S. training centers of the AFL-CIO conduct external assessments twice each year.

Trainers can upgrade their skills. As funding allows, Polish trainers are brought back to the U.S. to upgrade their teaching skills and to learn the latest technological innovations occurring in each of the crafts they teach.

Public-Private Partnerships

Private sector donations are a vital component of the training centers. Various U.S. companies have donated welding machines, hand tools, and other equipment to keep the centers up to date with state of the art technology and practice.

Sustainable Financing

The United States provides financial support, but the goal is self-sufficiency. The Consortium began with funding from USAID administered through the U.S. Department of Labor, the Polish government, the AFL-CIO (in both financial and voluntary capacities), and numerous corporate donors who contributed money and state-of-the-art equipment. The schools have received approximately US\$180,000. Eventually the U.S. financial support will end, and the Consortium is in the process of setting up a Board of Directors to manage the transition from U.S. to Polish control.

Private funding from companies. Some funding also comes from companies that have a product and need to develop skilled workers to use or install the product. The company

²¹ Report: Building Crafts Training Centers: Warsaw-Gdynia.

makes an arrangement with the school in which the school would provide the training and the company would supply the money and materials to train the students.

Replicability

The apprenticeship model is replicable. The training program can be replicated provided there is a demand for construction workers or workers in other skilled trades. The most important requirements are highly qualified instructors, modern equipment, building materials, and financial assistance for a given period of time.²²

²² Agatha Drozd, August 1996.

Economic and Social Impact

Promoting economic growth by improving the quality of labor. By training construction workers in U.S. standards and practices, the quality of construction in Poland and the quality of labor have improved considerably during the last few years. Contractors and investors pay more attention to new technologies, and their requirements for quality of labor are strict. The changes are most evident in finishing works such as suspended ceilings and partition walls. Contractors are emphasizing labor management and the use of modern tools and equipment.²³

Further, by helping to make more people employable, the economy is strengthened by a larger workforce, as there are then more consumers in the market. A healthy construction industry in turn stimulates other sectors of the economy, such as materials suppliers and maintenance contractors.

Employers' value the quality of training workers receive and frequently hire from their ranks. Employers are extremely interested in the Consortium's program, because U.S.-trained candidates are highly valued for their up-to-date knowledge of construction and state-of-the-art technologies. Many employers try to hire participants while they are apprenticing at their company or job-site. Some participants are lured away by the prospect of immediate employment before completing the program.

The centers cooperate with approximately 20 companies that provide manual training for the students. Companies often approach the centers as they are interested in employing the top graduates. Often the supply of graduates looking for employment is less than the number of companies interested in recruiting them. Besides joining the private sector, graduates also work in the public sector.²⁴

Graduates find or create jobs. Since June 1991, more than 2,000 participants have graduated from the program, and nearly 100 percent of them have found permanent employment. Approximately 10 percent of the graduates have become self-employed. Those who have established their own companies often continue associations with the centers and provide manual training and employment for students.

Environmentally safe practices are featured in the training program. Construction workers learn about properly handling hazardous materials, and the Consortium is considering implementing new courses in asbestos, lead hazard training, and in ground and water pollution.

Sharing building-crafts technology. The training program advances a trans-Atlantic transfer of technology know-how. The courses are conducted by instructors who attended training courses in the United States. Trainers learn U.S. technology in the context of the

²³ Agatha Drozd, August 1996.

²⁴ Agatha Drozd, August 1996. August 1996

construction industry and return to Poland where they disseminate the knowledge to program participants.²⁵

²⁵ Report: Building Crafts Training Centers: Warsaw-Gdynia.

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Acknowledgments

The author gratefully acknowledges Agatha Drozdz, Polish-American Building Crafts Training Center; Don Ridzon, U.S. Department of Labor; Raymond J. Robertson, International Association of Bridge, Structural and Ornamental Iron Workers, and Ken Edwards, International Brotherhood of Electrical Workers for their assistance in making this case possible.

Primary Author: Gail Greenblatt Saporito

REGION: Europe

Ukraine
Retraining of the Military Program
A Division of the International Renaissance Foundation

Case Overview

The Ukrainian Retraining of the Military Program (RMP) is designed to ameliorate the difficulties faced by discharged servicemen, their families, and society as a whole in finding new productive employment as a result of the decision to reduce the armed forces from 726,000 in 1991 to 220,000 by 2005. Sociological studies indicate that discharged servicemen have difficulty adapting to civilian life, and note a significant rise in the death rate among them. Recognizing the difficulties inherent in demilitarizing its society, RMP was launched as a pilot project on the basis of an agreement between the President of Ukraine and American financier George Soros. Retired Colonel Gennadiy Aksionov has been the director of RMP since 1994. In 1994, RMP was granted official status. RMP is sponsored by the International Renaissance Foundation (IRF), a nongovernmental, nonprofit organization that promotes the development of an open, democratic civil society by means of financial, material, technical, organizational, and methodological support of Ukraine's intellectual resources. The IRF was established in 1990 by the Taras Shevchenko Ukrainian Language Society, the Ukrainian Peace Council, and Zelenyi Svit (Greenpeace) ecological association, and George Soros.

The RMP supports ex-military officers by operating a series of adaptation centers with representatives in 37 cities and towns throughout the Ukraine. These adaptation centers reach approximately 30,000 retired military officers. The centers organize retraining, health counseling, and other employment services by providing job information, counseling, training courses, and access to a network of nongovernmental organizations (NGOs) such as investment companies, credit unions, and other services. The NGOs are established by ex-servicemen. By linking ex-servicemen to appropriate NGOs and providing direct services, the RMP supports participants through the difficult transition to productive employment.

The primary objectives of RMP are to:

- Help ex-servicemen and their families adapt to civilian life and to a market economy by preparing them for productive employment in civilian occupations.
- Lower tensions within the armed forces and the Ukrainian society as a whole.
- Retrain ex-servicemen to transform them into stakeholders in a market-driven economy.

As of May 1996, 24,000 persons have been retrained, of which 10,000 have found employment with the assistance of the program's administration. They have found jobs in a wide range of organizations, including government, public, private, and cooperative

enterprises. RMP accomplishes job growth by focusing on the development of existing enterprises and by facilitating small business start-ups.

Why This Case Was Selected

RMP was selected for its:

- Focus on retraining retired military for civilian work, as this group is often a source of political instability in countries that are making a transition to a market economy.
- Training of retired military to help develop enterprises and a private sector.
- Comprehensive support to its clients.
- Broad geographic base
- Wide-range of military participants

Background

When Ukraine was a part of the Soviet Union, military service were prestigious and many educated men joined the military. Since 1990, demilitarization has resulted in large numbers of highly educated, highly skilled ex-servicemen have been forced to prepare for post-military careers. The potentially negative effects on society of the emergence of a large number of educated, highly skilled people into civilian life in which they see no future for themselves is an urgent problem, not only in Ukraine, but in other new independent states of the former Soviet Union. As these countries move toward democracy and an open market system, they have to manage many political issues raised by the potential destabilizing effect of large numbers of skilled, unemployed people. RMP was developed to help ameliorate the anxieties discharged military personnel and their families experience with regard to “finding a new life” in the civilian world. These people have the potential to make positive contributions to the country’s democratization and economy, if offered support and presented with opportunities to adapt to civilian life.

Leadership and Accountability

RMP is managed by a director who is himself a retired military officer. The central administration of RMP is located in Kiev. It has been headed by its director, retired Colonel Gennadiy Aksionov, since 1994. The director, with the assistance of his staff, plans, prepares, and administers the program. The RMP director is accountable for the program’s success. He reports to the IRF director general and to the RMP Board of Directors biannually.

An advisory board defines strategies and monitors progress. RMP’s Advisory Board defines the program’s strategies and monitors its implementation. The advisory board meets biannually and its members include deputy ministers from Ukraine’s labor, education, and defense ministries.

Demand-Driven Design

Adaptation centers cover most of the Ukraine. RMP has seven regional adaptation centers in the cities of Dnipropetrovsk, Donetsk, Kharkiv, Kiev, Lviv, Odessa, and Simferopol. The centers were established in cities where IRF branches are located. Ex-military personnel and their families go to adaptation centers for assistance in retraining and re-employment. The centers also provide notices of job openings, and labor market information from the state employment service offices, newspapers, and labor fairs to participants. Officials at the adaptation centers and the IRF regional branches establish agreements for the center to operate.

The program provides comprehensive support services for small business start-ups, including help obtaining financing. RMP provides participants with training that will enable them to find new jobs or start their own businesses. It accomplishes this in two ways: by developing and expanding existing enterprises; and by providing support services for participants who start up small businesses through “business incubators.” These “business incubators,” located in Kiev, offer communication, legal, and technical services, as well as support for hands-on training. Also, because few ex-servicemen possess start-up capital, RMP participants obtain credit and grants from various funding sources to help them set up enterprises. RMP is also developing mechanisms to offer direct support to create small businesses.

Competition among licensed training institutions reinforces high-quality training. RMP participants may choose to enroll in courses for a wide variety of trades at competing government-licensed education institutions. Some courses introduce students to business principles and other topics relevant to starting a small business. Courses range from 140 to 200 academic hours. The average term of full-time study is 1 to 1 1/2 months, while part-time evening courses last 3 to 4 months.

Open Access

RMP programs are not accessible to the general population. They are intended specifically for those regular servicemen (and their families) who were discharged after January 1, 1991, or who will be discharged in the current year. RMP also trains retired regular servicemen, a group that has either had no exposure to a market economy or that left their civilian professions in order to serve in the armed forces.

Women and girls are included, but not specifically targeted, by RMP. The programs are accessible to women and girls, but do not specifically cater to their needs or promote their status. RMP focuses on serving the needs of ex-military personnel and their families.

Portability of Skills

Program offerings are enriched and expanded by using outside training institutions. RMP coordinates its efforts with those of other countries to provide complementary training. For

example, while most of RMP's courses are classroom based, participants can compete for the opportunity to go to France for 1 week to gain additional training, which includes site visits to companies and enterprises similar to those they will try to launch in Ukraine.

Training programs provide skills that are highly portable throughout Ukraine. Both the training and skills that participants gain are portable in that individuals learn how to find jobs, start their own business, or acquire skills associated with a new occupation that is in demand, such as accounting. The wide range of retraining courses offered allows participants greater flexibility in choosing where to live and work.

Continuous Improvement

The program relies on a variety of information to ensure participants learn skills that are in high-demand. Researchers are constantly studying the labor markets in the Ukraine and the states that are transitioning to a market economy (such as Latvia, Poland, Russia). These external studies provide RMP with valuable information. RMP staff also anticipate labor market needs by using information from state employment service offices, labor fairs, and newspapers. Participants selecting appropriate training programs suited to their occupational interests. Most of the ex-servicemen are well-educated and typically choose to learn skills which are in high demand by the many small enterprises in the Ukraine, such as accounting.

Ongoing statistical quality-assurance is built in to the training delivery system. Every month, RMP monitors the training by checking the number of applicants, the number retrained, the number employed, and the total costs of each regional center. The RMP regional coordinator submits the statistical and financial reports to the RMP administration. At the end of each year, RMP hires the Institute of Sociology of the National Academy of Sciences of Ukraine to perform an analysis of all the data.

Participants evaluate their training. The educational programs and plans are modified according to the results of anonymous feedback from students at the end of the training and 3 months after the training. Additionally, labor market analysis and information from enterprises and companies inform the program's content.

Trainers are evaluated by participants and the RMP. Trainers affiliated with the several government-licensed educational institutions are selected by the RMP Expert Commission. Each trainer is evaluated through surveys completed anonymously by the trainees.

Public-Private Partnership

RMP training provides links to a number of new NGOs. A number of ex-military personnel start their own NGOs to provide services that are missing in a market economy (credit, counseling, etc.). The RMP is developing these NGOs into a network of continued support for participants as they enter the workforce.

The public sector plays a significant role in the overall program. For example, branches of the Ukrainian Association of Retired Regular Servicemen work together with the adaptation centers to assist ex-servicemen and their families in the transition to civilian life.

Financing

RMP is financed by a consortium of funders. RMP is financed by the IRF through the support of American financier George Soros. As of June 1, 1996, US\$3.2 million of Soros money and US\$1.17 million from other sources had been spent for RMP implementation. The other sources include the French government, the European Community, the European Union's Technical Assistance to the Commonwealth of Independent States program (TACIS), the Foundation for Educational Advancement in Eastern Europe, Foundation of Netherlands, Department of Education of Denmark, EURASIA Foundation (United States), Ukrainian Association of Retired Regular Servicemen, State Employment Service of Ukraine, and Ukrainian Educational Center for Management and Business.

Trainees pay for some of the costs associated with their retraining. All officers attending courses are expected to pay 10 to 30 percent of the retraining costs, which helps to ensure their commitment to participating in the program. The RMP covers 70 to 90 percent of the retraining costs (approximately US\$100). The second level of training, with up to one year of additional study is offered to the best graduates, who are selected through a contest.

Replicability

This program could be replicated wherever an armed forces reduction and conversion is taking place, as well as in situations in which there is any substantial downsizing by a major segment of the society. For example, many mines are being closed in Ukraine and the IRF Donetsk Regional Branch plans to adapt the ideas of the RMP to ease the transition of miners into new occupations.

Economic and Social Impact

Ex-servicemen support each other through NGOs. With the assistance of the RMP, ex-servicemen established NGOs, including public associations, investment companies, credit unions, and officers' enterprises to support each other during the difficult conditions of life under the pressure of a developing market economy.

Increased participation in civilian life should help build democracy. Thriving democratic processes have been linked to increased participation in society. As ex-servicemen participate in a variety of NGO activities and in other employment, their increased participation in civilian life should strengthen Ukraine's developing democracy.

The program is far-reaching. The RMP serves officers from various divisions of the armed forces, Ministry of Internal Affairs, Security Service, Border Security Forces, National Guard, Civil Defense Corps, and members of their families, approximately 30,000

individuals total. The parameters of the RMP's program exceed those of any adaptation program in any of the other newly independent states.

More people are employed. As of July 1996, 11,052 RMP participants either found jobs or created their own businesses.

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Primary Author: Gail Greenblatt Saporito

Executive Summary

This Analytical Study represents one-third of the *Compass to Workforce Development Toolkit* that includes a Video and a Guidebook containing 20 best-practice case studies. The purpose of the *Toolkit* is to help world donors, policymakers, NGOs, governments, private sector investors, and USAID missions to develop effective, market-oriented workforce development initiatives around the world. The Analytical Study provides the theoretical and conceptual grounding for workforce development; the criteria for what constitutes best practice were developed at a 1995 workshop that included representatives from world donor organizations, government officials, multinationals, and educators. The study draws extensively from the literature and the 20 cases to provide rich examples of how workforce development can link and leverage the results of two separate types of investments: investment in human capacity (i.e., basic through postsecondary education) and investment in economic development (job creation, economic growth, and training.)

Why is workforce development so important? Despite unprecedented flows of private money into poorer countries from U.S. and other sources, recent international publications warn that unless we reverse the widening gap between rich and poor nations now, the results for future generations will be disastrous. In many developing countries, the bulk of the population is under 25; in many such countries, youth and their parents face a bleak future, with virtually no jobs or self-employment opportunities. While this study will hopefully contribute to knowledge about how workforce development can directly contribute to health and population control, economic growth, sustainable environmental practices, and democracy-building, we hope it will also be used to examine workforce development across programs, agencies, funders, partners, and the education and training spectrum.

The failures of investments in traditional manpower studies and vocational-technical training in the 1980s have been well documented. It is time for a new paradigm, one that links the development of human capacity to a region's economy and the global market. Shifts in perspectives often reveal startling new vistas. By shifting to a different context, this study

proposes a new definition of workforce development, as “*enabling all people to have access to opportunities that enhance the development of their skills, knowledge, and aptitudes such that they are able to participate in productive work, either by means of self-employment or by working for someone else.*”

The global economy provides exciting new opportunities—decreased costs for technology, lowered barriers to entry into the knowledge-based economy, and an abundant base of human labor who are potential consumers. These opportunities are balanced by daunting challenges—decreased employment as productivity increases, together with accelerating rates of technological innovation that make it harder for developing nations to catch up as skills and tools more quickly become obsolete. The global economy also affects the role of the nation-state as economic actors collaborate and compete across traditional economic boundaries.

In analyzing eight important trends in workforce development, this study finds that skill requirements for formal sector employment in the year 2020 and beyond will be different from those in the past. As workers no longer have jobs for life, they must acquire core as well as superior technical skills that allow them to adapt quickly to different settings. Investments in these individuals require different approaches that integrate support across what are often separate agencies.

As the more developed countries seek to find their economy’s competitive advantage, some have developed highly successful national training systems. Others have devised or are developing national industrywide skill standards as they seek to improve the efficiency of their education and training systems. And while, traditionally, education and training have been the province of the young, the need for lifelong learning puts further pressures on less than flexible public sector institutions, that, like elephants, must “learn to dance.”

The Study’s remaining sections focus on findings that come from examining the 20

best-practice cases drawn from around the world along nine key dimensions: (1) leadership and accountability, (2) demand-driven design, (3) open access, (4) portable skills, (5) continuous improvement, (6) public-private partnerships, (7) sustainable financing, (8) replicability, and (9) the economic and social impact of the project, program or system.

The Study's final part also examines the potential roles of governments, donors, policymakers, and other investors and suggests ways in which current investments in workforce development programs could become even more powerful, by leveraging the investments of different investors to magnify the effect. The Study makes suggestions for forming and implementing policies conducive to economic growth and workforce development and recommends 10 potential roles for government, policymakers, NGOs, and other investors as they consider the benefits of investing in workforce development in their countries. We conclude by suggesting that the 20 cases in the Guidebook provide abundant evidence that workforce development can work for virtually everyone in the city, region, or country. As we await the development of new economic models capable of analyzing complex systems, we suggest that the 20 cases and many others around the world point the way to a future where all people have *access to opportunities that enhance the development of their skills, knowledge, and aptitudes such that they are able to participate in productive work, either by means of self-employment or by working for someone else.*"

APPENDIX

**Workforce Development Workshop
Summary of EDC Workforce Development Workshop
Identifying Critical Elements of a Successful Workforce Development
System
Meta Contextual and Guiding Principles
Questionnaire
Case Criteria Sheet for Nominees**

**Workforce Development Workshop
November 16-17, 1995**

Workforce Development Experts:

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President
Workforce Futures

Brian Dabson
President
Corporation for Enterprise Development

Ken Edwards
Director, Technical Services Dept.
IBEW

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Mgr. Learning Research
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Gary Garman
Mgr. Training & Professional Development
Siemens Stromberg-Carlson

Jeff King
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Summary of EDC Workforce Development Workshop November 16-17, 1995

Purpose:

Monika Aring (Director of EDC's Center for Workforce Development and Sr. Project Director) and Brian Dabson (Workshop Facilitator and President of the Corporation for Enterprise Development) explained the purpose of the workshop and its relationship to the study EDC has undertaken for the United States Agency for International Development (USAID). The purpose of the workshop was to bring leading experts in the field of international workforce development together to:

- frame the issue of workforce development internationally
- determine the parameters of the study
- suggest model workforce development programs for inclusion in the study
- outline the Mission Guidebook on improving the skills of the workforce

Workforce Development Scenarios

John Middleton, Chief of the New Products Division at the World Bank, presented his sketch of workforce development. Workforce development was a "hot" area of investment from the 1950's and 1970's, and began to falter in the 1980's. The World Bank and other agencies supported training schools based on the projection of growth for various sectors, determining what would be needed down the road and preparing for it. The training schools were 2 to 6 times more expensive to run than regular schools, and proved to be largely ineffective for several reasons:

- the workforce didn't grow in the way forecasted
- some fundamental assumptions were wrong, for example, employers didn't employ in strict categories, they made different choices, including training people themselves
- restructuring of occupations
- training school graduates demanded higher wages, and employers decided to pay half the wages for a non-graduate instead and train the person themselves
- vocational schools were used to divert young people from university

Contrary to the widespread failure of the vocational training school, some public training systems have worked very well (SENA, SENAI), principally in Latin America. These examples were successful because they did not depend exclusively on the government. They were flexible, and redirected to where employment was growing.

There is evidence to indicate that government policies to encourage more training can work, such as in Hong Kong. However, policy can also go too far and subsidize activities that would have taken place anyway. Economic policy matters a lot in whether training will be successful, and if effort is put into encouraging and supporting markets to function well, many training activities will often happen. The study should endeavor to find models of macro-level policy development successes (and failures).

The informal sector deserves special attention. In many countries, large percentages of the workforce are employed in the informal sector. In this sector, general education is often the best predictor of success.

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It seems that the traditional apprenticeship model is very adaptable here, but cases are needed to document training in this sector.

Hong Tan, Senior Economist at the World Bank added a number of points to this presentation:

- Countries must adapt to economic context, even successful programs (SENA) must change as the situation changes.
- The same program in nearly the same circumstances may still not work (i.e., when Malaysia tried to replicate the skill center that Motorola had developed, in this case the difference was that the genesis did not come from employers in the replicated centers).
- Firms don't train because they don't need it because technology is standardized
- some don't know how to do it
- and some are afraid to train because someone else will steal that employee
- Many SMEs are really quite homogenous, very efficient, many R&D intensive.
- Many firms don't know government incentives are available.
- Public training institutions play a small role in post-school training.

Region Summaries

A representative from each region was asked to summarize workforce development.

Latin America

Trends in training are:

- directed to jobs, not general
- focused on job performance
- directed toward strategic objectives
- applying best practices
- training pacts between trainee and employer
- focused on skill gaps
- train a critical mass of people for support
- follow-up mechanisms, reinforcement

Africa

Most missions in Africa are really learning about workforce development. Their strategic objectives are focused on other things: health, population, and basic education. The training that is done is under the rubric of HRDA and targeted “critical mass” skills and focused on key institutions.

Asia

Asia is a very disparate region. The focus in Asia is often on women and girls, especially urban vs. rural. Cambodia and Nepal are concentrating on the adult literacy component of workforce development. Some missions are doing other workforce development, such as in the Mindanao region of the Philippines providing business skills training for rural entrepreneurs or Bangladesh's business advisory service centers. Some training is more sectorally-focused, such as Egypt's energy management manpower development industry-based environmental training exchanges.

Europe and the Newly Independent States

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Training here is short-term, done in groups, and focuses on training a small cadre who will take skills back and share. In 2 years, 6600 people have been trained in and out of country.

There are no education programs at all in the NIS. Often, missions respond to government inquiries. One example of a specific project is the Partnership Project, which pairs US institutions with in-country organizations, setting up training-related activities and products.

Identifying Critical Elements of a Successful Workforce Development System

Four breakout groups identified critical elements of a successful workforce development system. The work of the small groups is presented in an accompanying document.

The large group then created a three-level framework for analyzing best practice cases: 1) meta-contextual factors, 2) guiding principles, and 3) operational/programmatic features. This framework is included in this packet.

Current USAID Workforce Development Investment

Cathy Corbitt, EDC project research assistant, presented the preliminary findings of her research. Workforce development was rarely at the fore in the AID documents available for review, and many times it was called something else. However, there were consistent threads of workforce development in many mission objectives:

- formal USAID projects such as the Participant Training Program and the Human Resources Development Assistance project (HRDA)
- as part of another, seemingly unrelated, strategic objective such as “improving maternal and child health,” which includes the training of health care workers. Teacher training and environmental management are also common places to find workforce development.
- as part of microenterprise and small business development initiatives
- as part of an objective to increase agricultural productivity or technical capacity
- in improving women's lives through increasing skills and economic participation
- in a “special circumstance,” such as NAFTA in Mexico or reintegration of ex-combatants in Mozambique, where vocational training is part of an overall strategy to address change
- as part of assistance from PVOs, such as the International Executive Service Corps

Ms. Corbitt indicated that EDC's final report would also list the “top tier” USAID missions doing workforce development as defined by specific criteria.

Discussion and Amendment to Day One Work

To begin the second day, the floor was opened for discussion and amendment to the previous day's results. Topics included discussion of:

- when “customer-driven” becomes problematic, specifically when interest groups push for programs that do not match labor market needs or employer requirements
- the importance of macro and micro economics, contextual factors, and history
- the criteria for cost-effectiveness
- the role of luck, good and bad, in success and failure of programs
- the problem of consumer myopia and short-sightedness

- balance between planning and flexibility
- need for training that provides for life-long learning, transferable skills, and choices
- the key factor of the degree of labor market uncertainty

Nomination of Possible Case Studies

After slight amendment to the meta-contextuals and guiding principles, the group split into two and nominated case studies. The results of each group were recorded and will be investigated for the EDC report.

Suggestions for the Study

The group suggested how to frame and present the study. Initially, a concern was raised about the ability to do the study “right” (visit a lot of sites first hand and record data) because of the funding level. Many programs are simply not well documented. It was felt that this was a great opportunity to update the World Bank's work of four years ago, but that relying on secondary studies would add only so much to the existing body of knowledge in the field. The ILO and the World Bank are currently undertaking similar studies.

It was suggested that EDC begin with the principles: how they were picked, why they are “quality indicators,” and why these are valid principles to stand on. Then, the models should be selected to put these principles into practice (not necessarily all at the same time, but at least one and do it well).

- More detailed case studies should show how the models put the principles into play.
- It was suggested that 2/3 of the models should be from developing countries.
- Models must span the depth and breadth of the situations and contexts in which missions find themselves.

Suggestions for Guidebook

Several points about the guidebook were made. The guidebook should:

- be the road map of the process of creating workforce development programs or systems.
- set a vision for what successful workforce development looks like and how to get there
- have a keywords index because there must be multiple ways to get to the programs that will work for you (hypertext linking, search, cross-reference, etc.)
- This included a discussion of how to best present the guidebook: a hypertext linking or CD-ROM was preferred, but likely unfeasible given the funding level. A binder was the next best option.
- give missions models to use and show them how and under what conditions (constraints, environments, etc.) they worked and what they addressed
- discuss what has not worked
- explain the replication process and what to do with the models
- include a strong section on how to set up an information gathering and monitoring system
- related to the four overall USAID objectives and current activities
- include two paragraphs on each model
- contain a matrix that looks like:

Guiding Principles---> Contextual Factors--->Projects--->Oper./Programmatic Principles

Identifying Critical Elements of a Successful Workforce Development System Workforce Development Workshop

Group #1

Physical infrastructure (technology)
Political economy/governance (if don't understand this, it can't work)
Legal
Information knowledge system
Education
Quality
Money

Group #2

CAPACITY

Program development processes are complete, replicable, and culturally appropriate
Integrate all levels of enterprise development
System able to renew and regenerate itself
Must exist in larger context--lifelong learning
Integrated in context of lifelong learning, learning communities, and systems
Hard and soft skills--will do and can do--soft skills must consider cultural context
(multinational programs in various sectors)
Must train trainers
Participatory and flexible
System: recognizable principles and procedures
Creativity linked with all global delivery services

SYSTEMS DESIGN

Access
Equitable
Open access includes continual national assessment of income distribution (full participation of low income, female, rural, and minority groups)
Accessible and successful (ensures inclusion for all people, including disenfranchised)
Must include worker training and retraining

CURRICULUM

Education and work are linked
Integrated at all levels
Effective utilization of learning and performance technologies

Group #2 (continued)

Multiple avenues and flexible exit points--open entry, open exit

Outcome

Portable skills: firm to firm, region to region

Focus on deliverables

Must establish standards and certification levels

Flexibility and transferability of skills

OUTCOMES

Market driven/customer driven

Way of anticipating trends

External assessment and evaluation system

Each factor contributes to market development

Competency is not time-based

INFORMATION

Comprehensive labor market info. system

Labor market info. must be available to everyone (1 stop BIZ centers)

Consumer report on training providers

FINANCING

Multiple sources of financing

Cost effective

Flexible financing system

GOVERNANCE

Good partnership with government, industry, and education

Mutual investment by partners (including customer): all put something in the pot and the outcome matters

Mutual policy making authority

Group #3

Must know where the people are and where they want to be, so must do a needs assessment first to figure out the "skills gap" to guide investment; ongoing assessment.

Employer self-interest drives investment in training

Clarify role of public sector in training

Appropriate role for govt.: provide information about workforce opportunities for all parties

Group #3 (continued)

System should be self-sustaining for the long term; have measurable outcomes; demonstrate effectiveness:

- social impact
- cost benefit
- environment

Flexibility; responsive to changing economy, technology, social needs; capable of evolving; support adjustment

Recognize that all the parties have different objectives, motives, and interests

Recognize training systems as support for economic development rather than the end in itself

Diversity is essential; multiple strategies for multiple sectors

Training policy could be multi-level: national/regional/local

Workforce development builds on basic education:

- the level of education that people bring to the labor market determines the workforce development strategy

Workforce training depends on investment in basic education

- basic education is a platform for training development

Workforce training is not a substitute for basic education:

- there's tension over calling it education or training. If it's education, then government owns it; if it's training, then the private sector owns it

Incentives to stimulate employer investment (get employers to see the light); employers should have a vital role in designing it

System needs to serve different populations in society:

- preparing for employment
- working people
- unemployed

Group #4

Essential Components of Effective Workforce Development Systems

Characteristics and Features

Run by employers (or someone who loses if it doesn't please employer) with a goal

Part of entire company system

Worker pays for part, employer pays for part

Workforce development goes on all the time, continuous upgrading throughout the life cycle

Supply-demand management: flexibility of management to respond to market opportunities

Delivery can be by a variety of modes: firms; community colleges

Group #4 (continued)

Objectives, goals, what is it going to do--paying attention to target populations and participants (rural, women, etc.)

Provide information to students, parents, and employers about what's going on and how to take advantage of it (marketing)

Create indicators (evaluate based on indicators), set participation targets (income over time, employment picture)

Increase competitiveness

Grow new business and industry

Must be training "plus" (capitals, materials) some way to implement/make use of what you've learned

Long-term extensive blue collar training paid for and done by public source. Short-term, targeted, white collar paid for, done by private source

Quality--who is willing to pay for it?

Assumption: massive investment in basic education and initial training

Affect change by spreading training; the trained individual as a change agent who will teach others

Where should training take place? Want to create maximum access for training.

Accountability (respond to market, business)

Provide access to better wages and employment, not to training

Training that is a little bit ahead of the market

Costs and benefits must be aligned

Transfer of technology

Meta Contextual and Guiding Principles

Meta/Contextual (environmental scan to determine nature of intervention)

maturity of policy/governance system
social capital/cohesiveness
legal system
knowledge infrastructure
education system
culture/culturally appropriate

Guiding Principles

promotes all levels of economic development
built on or providing basic education skills
employer-led (public-private partnership)
multiple-funders, leverage funding
performance-based (what you actually know and can do....) (quality)
market driven (customer driven)
open to and equitability for all populations
promotes entrepreneurship
individual invests in own skill development
builds in lifelong learning
flexibility
can perpetuate itself (regenerates/is renewable)
recognizes different interests/players
recognizes impact of individual as change agent
workforce development linked to multiple systems (education, economic development, social supports)
information on labor market is available
anticipates market opportunities
govt. and other parties play appropriate roles
builds on basic education, not a substitute for basic education

Operational and Programmatic Principles

competency-based, not time-based
open entry, open exit
clear goals
knows target population (based on needs assessment)
based on labor market information
links education and work
utilizes various learning technologies, including distance learning
provides portable skills
focus on deliverables
establishes standards and certification

Operational and Programmatic Principles (continued)

uses external assessment
cost-effective
provides training
accountability is built-in

access to better wages and employment
trains trainers

QUESTIONNAIRE FOR WORKFORCE DEVELOPMENT PROGRAMS

Case Overview

Contact Info:

How was the program started?

Who/what group started it?

When and where?

Primary objectives:

Geographic and participant coverage of program ? (matrix)

Describe participants in terms of: Gender? Age range? Ethnicity? Income level(s)?

What is unique about your program?

What results have you seen? (over what period of time?)

Country Background Info. (ed. attainment, some socioeconomic info. will be woven into the cases.)

Details of each of the Key Success Factors:

Leadership, Accountability

Primary strategies?

Philosophy/conceptual framework underlying program?

What are the recognizable values, principles and procedures which govern the project/program/system?

Why are they set up this way?

What standards exist to uphold these principles?

If so, who or what organizations defines what skills are deemed necessary to learn?

Demand-Driven Design

How is this project or program or system tied to the market?

Is this project/program/system tied into the international market in any way? (For instance, do the skills/products the individuals develop compete on the international market?)

What information do participants and program designers/ policymakers have about labor market needs in their region/country?

Does this project attempt to anticipate trends in skills demand or workforce development gaps? If so, how does it do this?

How are the trainers in this program trained?

Where are the trainers trained?

To what extent is the program competency based as opposed to time based?

Is there a clear focus on deliverables? If so, in what way?

Open Access

What populations is this project geared toward: Urban? Rural? Men? Women? Youth? Elderly? Unemployed? Laid off?

What segments of the labor force are being trained and why?

How accessible is the project/system/program to women and girls?

How accessible is the project/system/program to other populations (specify populations)?

Can you give examples?

Portability of Skills

Does this project/program teach or help people learn specific academic, vocational, technical skills only, or does it also help them learn some of the “softer” skills, such as negotiation, teamwork, supervision, etc.?

Are the skills obtained portable, from firm to firm?

Are the skills obtained portable, from region to region?

How does this program/project/system lead to lifelong learning?

Continuous Improvement

What are the indicators of success/failure along the way once someone is in the program/system/project?

Do these indicators get periodically reviewed?

What factors are reviewed?

Does the result of the review change the program in any way?

Who participates in these reviews?

Are the trainers evaluated periodically?

If so, how and by whom?

Public-Private Partnerships

What are the employers' interests in this project?

To what extent, if any, have employers invested in the project, program, or system?

Is there any partnership between government, industry, education, NGO's, others?

What is the role of the public sector in this project?

Sustainable Financing

How is the project/program/system financed?

Are there multiple financing sources?

If so, what are they?

What costs, if any, are borne by the various stakeholders in this program?

About how much money is spent on education and training per individual in this project?

Is the financing system flexible?

Does it adapt itself to different funding circumstances?

If so, how?

Please provide information by type of financing, noting the relevant percentage contribution of each type, as well as the total annual budget of the organization.

Replicability

Do you think this project or approach is replicable somewhere else?

If so, why and how?

If not, why not?

If the program has been replicated, where, why and with what results? Do you have a copy of the evaluation reports (if any)? Which were the key indicators used?

Economic and Social Impact (environment, women, health, economic growth, democracy building)

Is there any data on the cost-effectiveness of the program/project/system? For instance, what are graduation/completion rates?

How many get jobs as a result of the program?

What is the difference in standard of living achieved before/after?

To what might these entry jobs lead?

To what extent does this project/program/system encourage sustainable environmental practices? Describe

Is there any technology transfer going on? If so, from where to where? (ex. large firms to small firms, etc.)

Case Criteria Sheet for Nominees for Best Practice (or Worst Practice) Cases

Please check those characteristics which apply to your best practice nomination, and describe your nominee on the reverse side. If you have more than one nomination, please copy this form and fill it out for each nomination.

Name of Nomination/Country/Contact _____

1. Which of the socioeconomic criteria does your case satisfy?

- | | |
|---------------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> Mature policy/governance | <input type="checkbox"/> Knowledge infrastructure |
| <input type="checkbox"/> Social cohesiveness | <input type="checkbox"/> Education system |
| <input type="checkbox"/> Established legal system | <input type="checkbox"/> Culturally appropriate |

2. Which of the following guiding principles does your case exhibit?

- | | |
|-----------------------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Promotes economic development | <input type="checkbox"/> Customer-driven |
| <input type="checkbox"/> Builds on or provides basic education skills | <input type="checkbox"/> Open and equitable |
| <input type="checkbox"/> Employer-led | <input type="checkbox"/> Promotes entrepreneurship |
| <input type="checkbox"/> Public-Private partnership | <input type="checkbox"/> Encourages personal responsibility |
| <input type="checkbox"/> Part of larger learning community | <input type="checkbox"/> Multiple-funders |
| <input type="checkbox"/> Flexible | <input type="checkbox"/> Leveraged |
| <input type="checkbox"/> Self-perpetuating | <input type="checkbox"/> Performance based |
| <input type="checkbox"/> Sustainable | <input type="checkbox"/> Market-driven |

3. Which of the following operational (or programmatic) principles does your case exhibit?

- | | |
|-----------------------------------------------------------------|----------------------------------------------------------------|
| <input type="checkbox"/> Clear goals | <input type="checkbox"/> Provides portable skills |
| <input type="checkbox"/> Based on labor market systems | <input type="checkbox"/> Focus on deliverables |
| <input type="checkbox"/> Open entry | <input type="checkbox"/> Establishes standards & certification |
| <input type="checkbox"/> Open exit | <input type="checkbox"/> Uses external assessment |
| <input type="checkbox"/> Competency (not time) based | <input type="checkbox"/> Cost-effective |
| <input type="checkbox"/> Links education & work | <input type="checkbox"/> Training-plus |
| <input type="checkbox"/> Utilizes various learning technologies | <input type="checkbox"/> Accountability is built in |

In your own words, please describe your nominee below in each of the three areas:

Nominee: _____

1. Meta-Contextual

2. Guiding Principles

3. Operational or Programmatic Principles
